

Manufacturers Record

Exponent of America



\$6.50 per Year.
Single Copy, 20 Cents.

Baltimore, Md.
DECEMBER 27, 1923

What of the New Year?

The value of the farm products of the country exceeds by nearly \$3,000,000,000 the value for 1922, and the value for 1922 exceeded by \$2,000,000,000 the value for 1921. The farmers are thus on rising ground despite the tremendous handicaps which they endured following the depression of 1920 and 1921. Railroads are handling the largest volume of freight in the history of the country, and their passenger traffic is far and away in excess of their facilities for handling it expeditiously and to the best advantage.

The boll weevil cut short the cotton crop, and this has resulted in an advance of from \$750,000,000 to \$1,000,000,000 over what a larger crop would have produced, and Southern farmers are thus as a whole benefited to that extent, though individual farmers and individual sections are suffering by reason of boll weevil destructiveness.

The movement of citrus fruits and vegetables of almost every variety, winter grown for northern and western consumers, has begun, and Southern railroads will for the next four or five months handle an average of about 1000 cars a day of foodstuffs shipped from the South to feed the people of less favored sections. This traffic brings into the South about \$400,000,000 to \$500,000,000 a year added to the income of Southern farmers.

Highway building is under construction to the extent of some hundreds of millions of dollars in the South, and to an even larger amount in the rest of the country, hastening the time when impassable mud roads will give place to hard surface roads, and in doing this hastening the development of business and the advancement of civilization and of educational, material and religious activities throughout the country districts.

Railroads with increasing earnings and ever expanding traffic must go on spending enormous sums for enlarging their facilities for the handling of the increasing trade of the country. They must spend more than a billion dollars a year even to avoid going backwards, and a much larger sum annually if they would keep step with the progress of the nation's business.

Building activity is sweeping over the land and exceeding everything in that line we have ever known in the past, and yet we have not reached the point where we are even filling up the vacuum created by the long period of inactive building construction work.

Throughout the nation there is progress everywhere. Betterment is going on in the factory, and on the farm, in railroad work and in construction activities. A demand for labor is keeping well employed practically every willing worker in the land and at a higher average rate of wages—for which all the people should rejoice—than at any time in history except for a brief period during the late war. Prosperity begets prosperity. Business breeds increasing business, and this country will enter upon the New Year with a brighter outlook, despite political discussions, than in any year since 1906.

Then on with optimism! On with the spirit of achievement! On with the song of joy and thanksgiving for the abounding blessings with which this country has been crowned, and down with pessimism of all kinds wherever it shows its head!



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DECEMBER 27, 1923

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PUBLISHED EVERY THURSDAY BY THE
MANUFACTURERS RECORD PUBLISHING CO.

Office: Manufacturers Record Building, Corner Commerce and Water Sts., Baltimore, Maryland.
RICHARD H. EDMONDS, President; FRANK GOULD, First Vice-President; VICTOR H. POWER, Second Vice-President;
I. S. FIELD, Secretary; J. ROBERT GOULD, Treasurer

RICHARD H. EDMONDS, Editor

BRANCH OFFICES:

CHICAGO, 11 So. La Salle St.
BOSTON, 734 Old South Bldg.

NEW YORK, 901 Singer Bldg.
CINCINNATI, 923 Union Trust Bldg.

SUBSCRIPTION RATES:

\$6.50 a year (in advance); six months, \$3.50; three months, \$2 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada add postage \$2 a year. For other foreign countries add postage \$5.50 a year. Back numbers, if available and not over one month old, 20 cents each. From one month to six months old, 50 cents each; over six months old, \$1 each. In ordering change of address, give old as well as new address.

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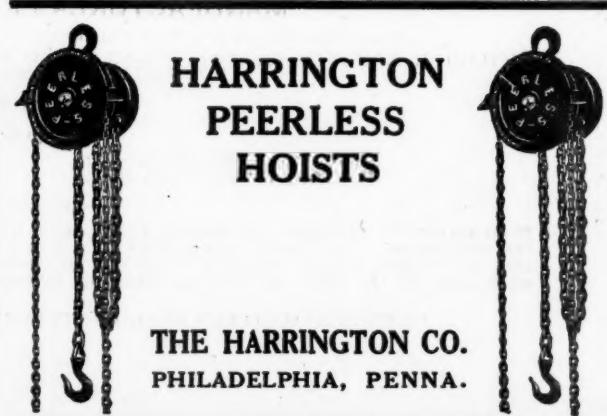
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Manufacturers Record

EXONENT OF AMERICA

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Vol. LXXXIV No. 26 }
Weekly. }

BALTIMORE, DECEMBER 27, 1923.

{ Single Copies, 20 Cents.
\$6.50 A Year.

1923—The Past: 1924—The Outlook.

THE Old Year as it passes out is leaving behind it a record of great achievements in business affairs. It will show the expenditure of about \$1,500,000,000 upon railroad expansion, and of \$5,000,000,000 or thereabouts upon building activity which is spread from the Atlantic to the Pacific and from the Lakes to the Gulf. It will show an average of but a little less than 1,000,000 carloads of freight moved every week during the year. The old year has seen the agricultural interests of the country, despite the overwhelming disaster under which they labored in 1920 and 1921, gradually emerging to the higher ground, with products enhanced to the extent of \$3,000,000,000 over the values of the preceding year. It has seen the farmers take on a new spirit of optimism in place of the pessimism which ruled rampantly for two years or more on nearly every farm in the land. The sunlight of a better day is beginning to touch the hills and the valleys of the farms of the whole country. Here and there men have lost out by reason of insect pests, or drouth, or too much rain, or crops too large for the market; but broadly speaking, the farmers are on higher ground, and they are closing the year more hopeful, more optimistic, and with a better outlook than they have had since the spring of 1920.

The New Year opens with world-wide betterment of business. The \$5,000,000,000 building record of 1923 will probably advance to \$7,000,000,000 or to \$8,000,000,000 in 1924. Economic conditions everywhere are improving. Reports to the United States Department of Commerce, confirmed by private information, show that unemployment is steadily lessening in Great Britain and on the Continent. Conditions are materially improving everywhere in Europe except, perhaps, in Germany; and even there the settlement of the Ruhr dispute between France and the industrial leaders promises to put back to work hundreds of thousands of men who were maintained by the German government in passive resistance. Germany's crops are unusually large, and the scarcity of food in Germany is due to the fact that the farmers are not willing to sell to city consumers and take pay in worthless marks.

Even in Russia economic conditions are bettering, and the Bolshevikistic rule, which wellnigh ruined that country, is losing its hold upon the people, and even the Bolsheviks and the Communists are realizing that they have made a fearful failure and are now struggling to get Russia back on solid economic ground, with a better financial system and a revival of industrial and agricultural work.

From the Far East come reports of decided improvement of conditions in India with a larger market for outside goods, while producing at home increased supplies as compared with former years.

China in places is still in the throes of semi-anarchy,

but so vast is that empire in extent and population that while one province may suffer, another may prosper; and China, too, will soon be counted among the advancing nations of the earth.

Japan has weathered heroically and successfully the great disaster of the earthquake and fire, and as San Francisco rebuilt on a larger and greater scale than ever before following its earthquake and fire, so will Japan do.

In 1904 when a disastrous conflagration swept out within forty-eight hours \$100,000,000 of property values in Baltimore, pessimists were found in abundance who declared that the city was forever ruined. One of the leading bankers, long regarded as a man not only of great wealth but of great vision, said to his fellow directors, "Baltimore has been practically ruined. It will be poor for many years to come. Make no move in rebuilding except with the thought that business will not revive for many years, and that Baltimore is very nigh a doomed city."

Week after week and month after month the wreck and ruin of the great conflagration remained in the streets, and it did look to people of narrow vision, who had not comprehended the power of man's rebuilding abilities, as though Baltimore was indeed ruined. It took a little time to gather together the rebuilding forces, to reshape affairs, to lay broader plans for the future. But all of these things were achieved, and the Baltimore of today is as unlike the Baltimore before the fire as the bustling, prosperous city is unlike the decaying, dying village of some country region.

Europe passed through a great conflagration which swept billions of its wealth and millions of its people out of existence. A mighty earthquake, the mightiest the world had ever known, shook the very foundation of Europe's business, and social, and political, and financial life. And men without vision grew pessimistic because Europe did not instantly weather this vast, overwhelming disaster and start afresh in economic development and sane political activities. Foolish men, who thought that any human power, any combination of nations of any shape or form could by any possibility instantly restore Europe to peace and prosperity!

For months after its fire Baltimore's streets were filled with rubbish, broken wires tangled every thoroughfare, great business blocks lay in ruins; and those who had not thought of what Chicago and other cities had achieved in rebuilding work after overwhelming disaster could not look ahead and see the larger and the better, and the cleaner, and the greater life of the city which was to come. Some men without vision thought that Europe was forever doomed because the wreck of war still tangled every country, still delayed the movement for national betterment of every kind, still held almost as in a vise the moral influences which might bring peace instead of enmity. Europe's industrial leaders knew not how to measure the future. Its financiers could

not overnight re-create the wealth that had been destroyed. No power could bring back to life the millions dead.

But no one should for a moment have imagined that Europe was dead, or dying. In the study of her history it should have been realized that the achievements following the Napoleonic Wars, and all the long and costly wars of the centuries, gave promise of what Europe would achieve following the World War. Its loss in men was greater than its loss in material wealth. But the living were quickened; the human brain was stimulated to work for new achievements. Men were learning that the victories of peace may largely surpass the victories of war. European losses in men and money were not relatively greater than during the Napoleonic wars. Many then said that Europe could not recover, that England for instance, could never pay its indebtedness. But all these Jeremiahs proved false prophets.

Gradually all of Europe is showing economic improvement. There is less unemployment than there has been since the day when the armies were disbanded. England, the greatest sufferer from unemployment, due largely to many unwise economic and financial policies, is coming out into higher ground. Unemployment is decreasing. English investors are once more sending their capital out into all parts of the world for new ventures.

Africa, perhaps the world's next great centre of activity, rich in resources, mineral and agricultural, water powers and timbers, will furnish to the energy and the capital of Europe a field somewhat akin to that which America furnished to Europe a few hundred years ago.

In South America there is great progress everywhere. Mexico is busy, busier than it has been for ten years. Central America is moving forward. The Panama Canal as a means of commerce between our eastern and Pacific coast, and for world trade, is proving even more successful than was predicted for it by its most enthusiastic advocates, and proving that in the not distant future we must build another canal, perhaps through Nicaragua, in order to safeguard the growing commerce of this country and the world, between the Atlantic and the Pacific.

For the first time in many years the last Congress voted a fairly decent sum for river and harbor work, and this session of Congress will probably do equally as well. Moreover, with President Coolidge's hearty commendation of the St. Lawrence project we may soon see the beginning of a work commensurate in importance to this country to the Panama Canal itself; and with the construction work now under way and that suggested by President Coolidge the time should not be distant when from Chicago to New Orleans there will be a mighty movement of traffic by reason of permanently deepened and maintained water transportation opportunities.

We are building highways everywhere, and we must go on building them for years to come with increasing activity, and still larger investments.

We have 14,000,000 of the 17,000,000 automobiles and motor trucks in the world. We are spending on the purchase and the maintenance of automobiles about \$9,000,000,000 or \$10,000,000,000 a year, or an amount equal to one-half of the total capitalization of all the railroads of the United States. This amount is largely in excess of the total taxation paid for national, state, city and county affairs.

The pessimists have long proclaimed that we are endangering the stability of our financial interests by the enormous investment in automobiles. Year after year their predictions have failed of fulfilment; and now, while here and there some individual may unwisely buy a car when he is too poor to justify the expenditure, it is recognized that the automobile and the motor truck are the stimulating, creative powers of much of our business development.

They are quickening the energy of the nation. They are doubling and quadrupling the power of men to do business. Though used here and there for evil purposes, they are as a whole one of the nation's greatest assets, and their utilization is adding to our business activities and to our creation of wealth to a far greater extent than we could ever have dreamed of ten years ago. They are more essential to the progress of the country than the telephone, without which it would seem that we could scarcely do business. They are as vital a factor in national advancement as the railroads themselves.

In owning 14,000,000 out of the 17,000,000 automobiles and motor trucks in the world we hold a dominant position in this industry which is almost matched by our other resources and business development as compared with the rest of the world.

And yet we have not overbuilt nor overdeveloped, for all that we have done is merely the pioneering work of a nation of the most virile, active people the world has ever known, unvexed by dividing, arbitrary laws which retard business as in other countries, with a fairly homogeneous population, or at least with an element sufficiently large to dominate the welfare of the country, and we can go on developing and continuing to develop until the wealth of today will seem small as compared with the wealth of ten years hence.

We should as a nation close the Old Year with thankfulness for all the good things which it has brought in material activities and betterment, and we should enter the New Year with a world horizon showing betterment everywhere, a steadily enlarging volume of world foreign trade, and our own foreign trade showing that every nation on earth, with rare exceptions, is able to buy from us in ever increasing quantity, and that we are buying from all other nations more than we ever bought before.

Today expansion is everywhere.

Dull of brain, indeed dull of imagination and without vision must be the man who cannot see in present conditions a promise of increasing prosperity for the years to come.

THE PROPAGANDA OF THE BUSINESS CYCLE ENTHUSIASTS.

E. C. Atkins & Company

Indianapolis, Ind., November 2.

Editor Manufacturers Record:

Upon my return home from some two weeks' absence, I find on my desk your kind favor of October 11, together with a copy of the issue of the MANUFACTURERS RECORD of October 11.

I have read the articles referred to viz., "A Monstrous Proposition" and "The Cycle Fad a Menace to Business." It is a pleasure to say that I agree with both most sincerely.

I am convinced that some of the methods pursued by some of the statistical and prophesying agencies in this country have proved and are continuing to prove a menace to the business interests.

If you will permit, I would offer the suggestion that you recommend in the columns of your paper to trade associations everywhere, that they take up and discuss this question and pass resolutions against the kind of propaganda that is being put out by some of these prophesying concerns.

Permit me to say that I am also in accord with the short editorial at the bottom of page 78, regarding our friend in Michigan.

Also permit me to give you a further compliment in your stand on the tariff question and your support of the Hon. John H. Kirby of Texas. He has undoubtedly been one of the best and most outstanding business men in this country. His untiring work for the benefit of the South can never be estimated, and unfortunately will probably never be appreciated by the people of that section for whom he has worked so long and so hard.

N. A. GLADDING.

Thirty of the Country's Principal Crops Valued at \$8,322,695,000 —A Gain of \$872,891,000 Over 1922, About Half of Which Is in Cotton.

BASED on December 1 acreage, production, and prices, the Agricultural Department estimates that thirty principal crops of the country have a farm value of \$8,322,695,000. Similar crops on December 1, 1922, were valued at \$7,449,804,000, and \$5,629,548,000 December 1, 1921. Compared with last year's value, these thirty crops will bring to the farmers an increase of \$872,891,000, and compared with 1921 values, an increase of over \$2,693,000,000. Better prices and larger acreage yields in most crops are heartening to the farmers and to the general business outlook of the country.

Corn continues to be the nation's most valuable crop, with a total value of \$2,222,013,000, with cotton and cottonseed running a close second. The value of lint cotton, based on December 1 prices, which are lower by several cents a pound than they have been for weeks, is \$1,563,347,000, and cottonseed \$205,538,000. Nearly half of the increase in the country's crop value is in cotton.

With the farmers continuing to receive strong prices for their farm crops, with the exception of the one-crop wheat areas of the northwest, this substantial increase in farm values, will be of great benefit to every line of business. But especially is the Southern farmer to be found in better condition than those of other parts of the country. Good cotton

and corn prices, for the South produces about a third of the country's corn crop, and a steady tobacco market, have made the South the most prosperous part of the country today.

While the total acreage of the thirty crops shows an increase of about 600,000 acres compared with the 1922 acreage, there was a smaller acreage in total grain this year than last.

The aggregate grain crops of the country amounted to 5,571,391,000 bushels produced on 225,827,000 acres of land, and valued, December 1, at \$3,820,282,000. Last year, 227,938,000 acres produced 5,431,719,000 bushels of grain valued at \$3,582,431,000.

The production of corn of 3,054,395,000 bushels brought \$312,000,000 more than the 2,906,020,000 bushel corn crop of 1922. White potatoes, with a production of 4,000,000 bushels less than in 1922, are valued at \$339,322,000, or an increase of \$76,000,000. Sweet potatoes dropped in production from 109,394,000 to 97,177,000 bushels but increased greatly in value this year.

Cotton and cottonseed increased in value over last year's prices of over \$432,000,000, and tobacco increased nearly \$10,000,000 compared with 1922 crop values.

ACREAGE, PRODUCTION, AND VALUE OF
1923

Crop	Acres	Production
Corn, bushels	104,158,000	3,054,395,000
Wheat, bushels	58,308,000	785,741,000
Oats, bushels	40,833,000	1,299,823,000
Barley, bushels	7,905,000	198,185,000
Rye, bushels	5,157,000	63,023,000
Buckwheat, bushels	737,000	13,920,000
Flaxseed, bushels	2,061,000	17,429,000
Rice, bushels	892,000	33,256,000
Grain sorghums, bushels	5,776,000	105,619,000
 Total grain, bushels	 225,827,000	 5,571,391,000
Potatoes, bushels	3,816,000	412,392,000
Sweet Potatoes, bushels	903,000	95,177,000
Peaches, bushels	.....	45,702,000
Pears, bushels	.....	17,390,000
Apples, bushels	.....	196,770,000
Peanuts, pounds	884,000	636,462,000
Beans, bushels	1,297,000	15,740,000
Onions, bushels	61,100	16,318,000
Cloverseed, bushels	800,000	1,233,000
Tobacco, pounds	1,820,000	1,474,786,000
Cotton, bales	37,420,000	10,081,000
Cottonseed, tons	.....	4,476,000
Hay, tons	75,884,000	106,626,000
Broomcorn, tons	498,000	69,300
Sugar Beets, tons	651,000	6,893,000
Cabbage, tons	98,200	740,000
Oranges, boxes	.....	34,800,000
Cranberries, barrels	25,000	610,000
Sorghum syrup, gallons	380,000	32,001,000
Total Value of 28 Crops	.....	.....

TWENTY-EIGHT PRINCIPAL FARM CROPS.
1922

Farm Value December 1	Acres	Production	Farm Value December 1
\$2,222,013,000	102,846,000	2,906,020,000	\$1,910,775,000
725,501,000	62,317,000	867,598,000	873,412,000
539,253,000	40,790,000	1,215,803,000	478,948,000
106,955,000	7,317,000	182,068,000	95,560,000
40,804,000	6,672,000	103,362,000	70,841,000
12,984,000	764,000	14,564,000	12,889,000
36,733,000	1,113,000	10,375,000	21,941,000
36,686,000	1,055,000	41,405,000	38,562,000
99,353,000	5,064,000	90,524,000	79,503,000
 227,938,000	 5,431,719,000	 \$3,582,431,000	
4,307,000	4,307,000	453,396,000	263,355,000
1,117,000	1,117,000	109,394,000	84,295,000
.....	.....	55,852,000	74,717,000
20,765,000	20,765,000	21,943,000	.....
202,702,000	202,702,000	199,848,000	.....
633,114,000	633,114,000	29,613,000	.....
1,074,000	1,074,000	12,734,000	47,640,000
63,290	63,290	18,763,000	15,876,000
1,156,000	1,156,000	1,887,000	18,971,000
1,695,000	1,695,000	1,246,837,000	289,248,000
33,036,000	33,036,000	9,761,000	1,161,846,000
4,336,000	4,336,000	174,220,000	.....
77,030,000	77,030,000	112,013,000	1,319,277,000
275,000	275,000	37,300	8,186,000
530,000	530,000	5,183,000	41,016,000
131,780	131,780	1,062,800	12,568,000
25,000	25,000	30,200,000	63,310,000
447,000	447,000	560,000	5,702,000
.....	.....	36,440,000	25,855,000
\$8,311,586,000	.....	.....	\$7,439,917,000

"OBEDIENCE TO LAW."

MR. WM. H. BARR, President of the National Founders' Association, closed his weekly letter of December 6 to the members of that organization with the following:

"If you will write to the MANUFACTURERS RECORD Publishing Company, Baltimore, Maryland, and ask for a pamphlet entitled "Obedience to Law," which is a copy of an address recently made by Richard H. Edmonds, Editor of the MANUFACTURERS RECORD, you will be doing yourself a great favor. If you will then read and study this pamphlet you will probably get an excellent lesson in patriotism, although it is not intended as a lesson, but merely as a presentation of

an important point which is sometimes overlooked, namely, that if a nation disregards its laws it is seeking its own self destruction. We do not care whether you are interested in prohibition, whether you favor it or whether you disapprove of it. The pamphlet should be read in the light of the great thought that unless we support the Constitution and our own laws we are undermining our institutions and our government."

This commendation by Mr. Barr of the address entitled "Obedience to Law" has already brought forth a good many inquiries from all parts of the country for copies of that address.

GOVERNOR CRISSINGER OF THE FEDERAL RESERVE BOARD ON THE PAR CLEAR-ANCE QUESTION AGAIN.

A WESTERN banker in a recent letter to the MANUFACTURERS RECORD said:

"In your issue of November 22, I note the article entitled 'Congratulations to the Federal Reserve Board,' which I read with some interest.

"However, I am afraid that you are a little premature in extending your congratulations. Like you, I thought that now the country banks would be permitted to charge exchange but I find that I am mistaken.

"We can charge exchange if we want to but I have a letter before me which states that if we do our name will be removed from the 'par list,' and they would discontinue the handling of checks on banks that do not remit at par. While this possibly may not be called a coercive measure, nevertheless, it is very effectual and there will be no exchange charged by the country banks.

"Personally, I greatly appreciate the fight you have put up against this injustice but I fear it was in vain."

The writer of the letter was afraid to have his name published, but the substance of his complaint was sent to Governor Crissinger of the Federal Reserve Board, knowing that he was desirous of bringing about friendly relations between the Reserve System and country banks. In reply Mr. Crissinger wrote as follows:

"I have your letter of December 7 and note the comment of the Western banker concerning the par list.

"The Federal Reserve Board is not responsible for the Federal Reserve Act nor is it responsible for the decision of the Supreme Court. It is difficult for me to say how the Federal Reserve Banks can advertise that a bank is on the par list and at the same time for that bank to deduct exchange. Recently when this whole controversy was heard before the Board at which the Secretary of the State Association, Mr. Adams, was present and others, it was then determined that any non-member bank desiring to be taken off of the par list had that option, and upon notice their name would be so taken from the par list by the Federal Reserve Banks. This was what I understood the officers of the non-par association desired, and it was what I understood to be their special request.

"I think you can readily understand how difficult it would be for the Federal Reserve Banks to take checks at par and then have a non-member bank refuse to pay par. The cases that we have had complaint about were that the Federal Reserve Bank had not taken the non-member bank off of the par list, and in every such case the Board has insisted that the Federal Reserve Bank omit from the par list any bank desiring to be omitted.

"Your correspondent is the first bank to complain of being left off of the par list. I can see, however, no way to help his situation. Your correspondent has the right, of course, to take out exchange, but in so doing his operations are through channels other than the Federal Reserve Bank, and this is what we have understood state banks wanted to do."

The views expressed by Governor Crissinger may not be in entire harmony with the views held by many of the non-member banks or by the Associations which represent them. We would therefore be glad if they feel so disposed to have an expression of opinion from the representatives of state banks as to the points made by Governor Crissinger.

We think it would be wise for Governor Crissinger, however, to bear in mind that the statement has been repeatedly made by Mr. John Skelton Williams, former Comptroller of the Currency and a member of the Federal Reserve Board, that one member of that Board, who is still a member, in discussing some questions relating to state banks said that if there was no other way to get rid of state banks than by breaking them, it would be better to do that.

The country has a right to ask if that spirit has ever been shown by that member or by any other member of the Board since the management was changed by the elimination therefrom of Governor Harding. That statement of hostility to state banks was so definite and positive and indicated a view so narrow and so contrary to the spirit which should

exist in the whole Federal Reserve System that until it is known that that spirit no longer has any influence in the Federal Reserve System, country banks are necessarily somewhat skeptical of the operations of the Federal Reserve Banks.

For the safety of the country in keeping this whole question from being thrown into a hot political campaign the MANUFACTURERS RECORD invites a free and frank discussion of these problems.

HIGH TRIBUTE FROM GADSDEN ROTARY CLUB.

A FEW weeks ago the MANUFACTURERS RECORD published on its cover page a remarkably clear and ringing declaration of principles in favor of the American open shop plan adopted by a mass-meeting of leading citizens of Gadsden, Alabama.

These resolutions were strongly worded and practically guaranteed that in Gadsden every man should have a right to work without union domination if he so desired. They had the true ring of Americanism in every line. Their publication has attracted much attention throughout the country.

As an expression of appreciation of the prominence given to Gadsden in this way, the Rotary Club of that city passed resolutions which while somewhat too flattering as to the MANUFACTURERS RECORD and its circulation, are as follows:

"WHEREAS the MANUFACTURERS RECORD on the front cover of its December issue published in display type the resolution of the Chamber of Commerce, business people and citizens of Gadsden declaring for open shop, and,

"WHEREAS in that way Gadsden was advertised as no other city has been in the South in the leading industrial journal of the world, a journal having a circulation of more than half a million among manufacturers, industrialists, bankers and great business men, and,

"WHEREAS the publication of the resolution in that great journal was voluntary and without compensation and its effect incalculably greater than a mere paid advertisement, and,

"WHEREAS the City of Gadsden is indebted to Secretary Butler and the Chamber of Commerce for calling the attention of the adoption of the resolution, immediately after its adoption, to the editor of the MANUFACTURERS RECORD and the Gadsden Times-News in its first issue after the receipt here of copies of the MANUFACTURERS RECORD, called attention to its publication in a conspicuous place,

"NOW THEREFORE BE IT RESOLVED by the Rotary Club of the City of Gadsden that the thanks of the Club be extended to the MANUFACTURERS RECORD for the publication of the resolution in such a conspicuous place in its journal, to Secretary Butler and the Chamber of Commerce for calling the attention of the adoption of the resolution to the editor of the MANUFACTURERS RECORD and to the Gadsden Times-News for so conspicuously publishing the fact that the MANUFACTURERS RECORD had in such wonderful manner given notice to the business world of the adoption of the resolution."

Commenting on this matter Mr. O. J. Stocks, President of the Stocks Realty Company, Gadsden, writes:

"We want to thank you for the prominence you gave in your issue of the MANUFACTURERS RECORD of December 6 to the resolutions of the Gadsden Chamber of Commerce and the business men of Gadsden.

"We do not think the Chamber of Commerce could have taken \$10,000 and spent it in any kind of advertising that would have done the town as much good as the reproduction of the resolutions by your MANUFACTURERS RECORD, and the prominence you gave them.

"We consider the MANUFACTURERS RECORD the best business journal published and the only one that has the 'guts' to say what it thinks regarding the radical labor situation.

"We appreciate your views on prohibition and law enforcement and are with you 100 per cent in your views."

HOMESEEKERS RATES FOR THE SOUTH AND SOUTHWEST.

L. J. FOLSE, Manager of the Mississippi Development Board, Hattiesburg, Miss., takes very strong ground on this subject, and believes that it is a waste of time to carry on any further controversy of the subject with the Southeastern Passenger Traffic Association, believing that the South must appeal to the Interstate Commerce Commission. Perhaps a direct appeal to the executive officers of all the railroads of the entire South, not only of the Southeast but of the far South into Texas, would be helpful. In writing on this subject to the MANUFACTURERS RECORD Mr. Folse says:

"We have been following with great interest your articles regarding homeseekers rates to the South and we compliment you very much on your editorials.

"The South should feel greatly obligated to the RECORD for its persistent and aggressive fighting for the right.

"The attitude of the railroads in regard to these homeseekers rates is not only absolutely short-sighted but it clearly indicates that these passenger representatives know very little about how and when homeseekers travel.

"The homeseekers from the territory from which the South has a right to expect to draw settlers certainly would not have the time to come South during their most busy season.

"A good many settlers have moved into this state and practically all of them are unanimous in the opinion that if reasonable rates were established a good many people from the North who are snow-bound for many months each year would take the opportunity to come South.

"There is no doubt that the demagogue politician is responsible for many of the handicaps imposed upon our transportation system, but in my opinion the short-sightedness of the passenger traffic representatives is just as harmful. The railroads have suffered because of a lack of public confidence and in spite of the great need for public goodwill that exists today they do not seem to take into consideration that the relatively minor thing if properly handled would indicate to the people that they are really trying to do their bit; certainly the smoke screen or camouflage which they have presented does not in any way reassure those who have come to the point where they believe some of the railroads need better management.

"I have advised Mr. Richardson that it is a waste of time in my opinion to continue this controversy with the Southeastern Passenger Traffic Association, for I do not believe they are going to get anywhere until we go to the Interstate Commerce Commission.

"Please keep the good work up and possibly those who dictate the policies of the Southern lines will realize that something should be done.

"It has not been so many years ago since the Southern railroads did all in their power to depopulate the South; it was pointed out in a review printed by the RECORD some time ago that Southern lines had sent train loads of people from the South to the West at rates which did not pay the cost of fuel for transporting the homeseekers, and yet when an equitable adjustment is sought, an adjustment that would mean as much to them as to any other interest of the South, they persist in evading the issue and their responsibility by resorting to technicalities which are largely imaginative, as the Western lines do not seem to have advanced the arguments used by the Southern lines nor did the Southern lines some years ago seem to think they were necessary. It is true at that time they were dominated by the East which had no interest in the South. The situation is somewhat dif-

ferent today, and in view of the past records of the Southern lines it seems to me they should be only too glad to do as you have stated, do their duty not only to the South but to themselves."

There are some railroads in the Southeast and Central South that are heartily in favor of homeseekers rates, and there are some which are doing a splendid work in attracting settlers to the South and in giving to them when they get there every possible consideration. One of the roads which is doing this work is the Illinois Central, and some facts bearing on what it is doing are contained in an interesting letter from President C. H. Markham to Stanley F. Morse, consulting agricultural engineer, of New York. Mr. Morse recently called Mr. Markham's attention to the editorial on this subject which appeared in the MANUFACTURERS RECORD, and in reply received from President Markham an interesting letter which he sends to the MANUFACTURERS RECORD. In the course of his letter to Mr. Morse, President Markham said:

"Thank you for your courteous thought in sending me the editorial from the MANUFACTURERS RECORD dealing with the subject of Southern lands. The point discussed may be pertinent as regards some localities but it does not altogether accurately summarize the situation along the lines of the Illinois Central System.

"We maintain a development bureau which concerns itself with just the precise details specifically stated in this article. For example, our development agents are familiar with the character of available lands along our lines. They study the settler's needs and give him the heartiest co-operation. Opportunities are studied out in detail and our bureau is in a position to furnish exact data. Their duty is not done when a settler is merely induced to come South. Our agents are constantly in intimate touch with industrial and agricultural conditions in this territory.

"We have promoted and materially assisted many enterprises such as fruit and vegetable growing, dairying and diversified farming. We maintain experiment fields and conduct soil analyses. We have purchased and loaned to dairy farmers in Tennessee, Mississippi, Kentucky and Louisiana twenty registered Jersey bulls this year, for improvement of their herds. Previous to this year we distributed purebred stock both male and female in various localities as an incentive to the raising of better cattle and hogs. We have assisted financially and otherwise in the establishment of creameries in many places. We have given substantial encouragement to building up the poultry industry, canning and preserving factories, etc.

"On the whole, therefore, I believe that this editorial very readily depicts the plan we are pursuing, and we have found it very markedly worth while. Under the circumstances, I heartily indorse the idea therein expressed."

Texas needs homeseekers rates as well as the Southeastern states. The railroads of that state should be aggressive in drawing Western and Canadian people to Texas.

WINTER WHEAT ACREAGE SMALLER THAN LAST YEAR.

THE Agricultural Department estimates the area sown to winter wheat this fall as 40,191,000 acres. This is 5,759,000 acres, or 12.6 per cent, less than the revised area of 45,950,000 acres sown to winter wheat in the fall of 1922.

For the Southern states, the winter wheat area is 10,228,000 acres, or 1,887,000 acres less than the 12,115,000 acres sown in the fall of 1922.

The area in rye throughout the country this fall is 4,377,000 acres, which is 15.1 per cent less than the revised estimated area of 5,157,000 acres sown in the fall of 1922.

REMARKABLE BANK SUBSCRIPTION IN 1835 TOLD IN A UNIQUE AND INTERESTING BANK ADVERTISEMENT.

LOOKING Forward Through Glimpses Backward" is the exceedingly appropriate title of a booklet issued by the Bank of Charleston, N. B. A., of Charleston, S. C., and containing a series of advertisements interweaving Charleston history with the history of the bank. Each advertisement carries an old-time illustration, followed by suitable reading matter and the entire publication is an impressive evidence of the broad vision in publicity methods possessed by the officers of the institution.

The first picture represents a business scene in Charleston in the time of Andrew Jackson when the bank was organized to take the place once filled by the Second Bank of the United States which was then being liquidated as a result of the repeal of the old national banking act. It is particularly noted that great confidence in the founders of the Bank of Charleston was displayed in the subscriptions to shares. The stock was limited to \$2,000,000, but there was immediately subscribed a total of \$80,000,000, and \$20,000,000 were at once paid in under the terms of subscription, which would be an extremely impressive figure even in these days of huge underwritings.

The second picture shows a small railroad train as it appeared on the South Carolina Railroad in 1835, the word railroad being divided into two syllables, thus "rail-road." Particular attention was directed to the fact that the entire journey from Charleston to Hamburg, S. C., 136 miles, (the latter point being immediately across the Savannah River from Augusta, Ga.), was "performed in daylight, from 6 A. M. to 6 P. M." Other illustrations include the sea front of the city known as "The Battery," Fort Sumter, Fort Moultrie, the Exchange or old post office, the Charleston Library Building, Institute Hall or more commonly called "Secession Hall," where the South Carolina ordinance of secession was signed in 1860; besides several religious edifices, views of farming life, commerce, industry, and sundry antique residences and other venerable structures. Not the least interesting of the pictures is a reproduction of a seven dollar note issued by the Bank of Charleston in 1861 and redeemed by it in 1904. In this connection it is remarked that "Every year quaint old notes in peculiar denominations are sent here for payment. They come from all corners of the globe, for Charleston's far flung commerce has scattered them to the four winds of trade."

The enormous over-subscription to the capital stock of the bank when it was organized has long been a matter of astonishment to financial men in Charleston, particularly because such a large amount of money (\$20,000,000) was immediately paid in to bind the subscriptions, according to reports issued at that time, this sum being forty times the amount of the capital, which was set at \$500,000. As none are now living who could tell about the organization of the bank the next best information about it—taken from the Charleston Courier of July 17, 1835—has been sent to the MANUFACTURERS RECORD by President R. S. Small.

This newspaper report states that subscriptions were received for 894,494 shares of stock although the act of incorporation provided for only 20,000 shares. There were 810,938 shares subscribed for in Charleston, 63,539 in Columbia and the rest in Cheraw, Hamburg and Camden, S. C. Therefore, the available stock was divided pro rata, the apportionment giving Charleston subscribers 18,125 shares, those in Columbia, 1431 shares and the other places in proportion. The surplus money was at once returned to those who had paid it in. Of a surplus of 168 shares remaining as a result of fractional divisions, one share each was awarded to per-

sons of small means who had subscribed for less than the number of shares required, in order not to disappoint them, but even after that there were 108 shares left over and they were disposed of by lot.

John Haslett, David Alexander and Ker Boyce were the commissioners, and the Courier's report says in conclusion: "The Charleston commissioners congratulate themselves and the stockholders on the termination of this arduous and unprecedented business."

"THE SPIRIT OF THE SOUTH."

COMMENTING on the action of the Civitan Club of Little Rock in arranging to purchase 2000 copies of the Blue Book of Southern Progress, one-half of them to be sent by local people to Northern and Western friends, the Asheville, North Carolina, Citizen commands this movement and adds:

"When the whole South is stirred by a spirit like this, mighty things will surely be brought to pass," declares an announcement on the front page of the current issue of the MANUFACTURERS RECORD. It refers to the fact that the members of the Civitan Club of Little Rock, Ark., had arranged to send to their friends and business acquaintances in the North and West 1000 copies of 'The Blue Book of Southern Progress,' after which Mr. P. B. Whitaker, Civitan International Secretary, wrote to other Civitan Clubs throughout the South recommending that they do the same thing. Mr. Whitaker's letter described the procedure as follows:

"This idea originated with the Civitan Club of Little Rock, Arkansas, and has already been carried out by that club, in the following manner: That club bought one thousand copies of this book at 25 cents per copy, sold them on the streets of Little Rock for the single issue price of 50 cents. With the profit made from this sale, they are buying one thousand additional copies for distribution to their friends in the North and West. The first batch of this second thousand will be sent by each Civitan of the Little Rock Club to a Civitan of a certain Northern Civitan Club, with a letter personally requesting that the book be carefully examined. The remaining copies will be sent by the Little Rock Civitans to their acquaintances in the North or West who are not Civitans also with a personal letter."

The Citizen's position is entirely correct in that all advertising campaigns to be successful must be continuous. Spasmodic work is valueless. If the railroads and the people of the South generally, who are now beginning to take a more lively interest in publicity work in behalf of the South, are not determined to carry that work on regularly and persistently year after year it would be better for them to abandon the whole thing and not make any move for broad publicity. If any business concern undertakes to put on the market a new product and anticipates that the heavy spending of money for one year will bring permanent success it is mistaken, and any good advertising adviser, even at the risk of a loss of present commission, would urge that no money be spent unless it is to be followed up continuously.

The same thing applies to advertising the South. The towns and cities and states and railroads and other corporations which are now thinking about carrying on publicity campaigns should drop their whole schemes unless they intend to weary not in well doing, but to go on continuously, year after year, in order that the seeds sown from year to year may bring a continuous harvest. The farmer who expected to reap crop after crop from one seeding alone would soon be in bankruptcy. He knows that he must plow and sow and reap year after year, and that is the only basis on which successful advertising can be done.

A QUESTION AND THE ANSWER.

J. E. GLOVER
MANUFACTURER

Pine and Cypress Lumber, Lath, Car Strips, Shingles
Crystal Springs, Fla., Nov. 28.

Editor Manufacturers Record:

I am enclosing herewith my check to cover subscription. Your predictions seem to pan out on most subjects you comment upon. I would like for you to write a short answer if no more, and say what good or what harm will come to our country through the Ku Klux Klan.

As I see it, it will cause a revolution if it isn't checked up, or some explanation openly made by the Klansmen, showing where it is proper to put on masks to do good deeds. I know that it is common for people to conceal themselves all they possibly can when committing crimes, but I fail to see why true American citizens wish to adopt and use such a costume that will be all that a great number of a "certain class" would ask for, to conceal all the crime they would wish to do.

My opinion in this matter is that if instead of the practice of mob violence, if all who would join such bands, would resolve deep down in their hearts that they would not violate the laws of our country, nor patronize whom they know to be lawbreakers, this would stop the "pot calling the kettle black." And our country would not need so much law enforcement. If I am wrong I hope to be enlightened.

J. E. GLOVER.

The MANUFACTURERS RECORD does not believe in hooded mobs of any kind. It does not believe in any secret organization undertaking to punish criminals either by lynchings or whippings. It believes that the breaking down of law by such organizations results in more harm to the moral forces of a community than illegal punishment in this way can possibly do good.

The MANUFACTURERS RECORD does not believe that pure Americanism needs to be upheld in this way. It does not believe that Protestantism can be benefited by such an organization claiming to stand for Protestantism.

The Ku Klux Klan organization, however worthy may be the motives of some of its adherents, gives to criminals the opportunity to wreak their vengeance upon any one and give out the impression that it was done by the Ku Klux Klan. That organization in that way gives countenance and encouragement to criminals to carry on their activities.

If the members of the Ku Klux Klan, and we have no doubt that many of them are perfectly honest and sincere in their beliefs, will stand out openly and be counted in any political contest for the election of honest, fearless men who will enforce the laws, they can accomplish, in our opinion, infinitely more good than they can possibly accomplish by secret methods.

The Ku Klux Klan is sowing hatred where love should be sown. It is creating a spirit of religious enmity, and this can never produce good. As a "Protestant descendant of generations of Protestants" the writer unhesitatingly takes the position that if Protestantism could not be saved by any other method than that of the Ku Klux Klan organization it would be better that Protestantism should die, because God does not need methods of that kind to uphold His cause. If Americanism pure and simple could not be maintained in any other way than by the secret methods of any hooded organization, Americanism would not be worthy to live.

Giving all possible credit to such members of the Klan as are honest, patriotic citizens, we do not hesitate to say that in our opinion the organization is a menace to the welfare and happiness of the country. It is organized and operated on a wrong basis. It is a creator of hate rather than of love. It sows religious hatred. It sows race hatred. It sows hatred between the Jew and the Gentile, and if its members are opposed to flooding this country with immigration they are taking the wrong method of accomplishing their aims.

There are great wrongs to be righted in this country; great evils to be overcome; great criminality to be sup-

pressed. But the way to achieve these results is for every man to have the courage of his convictions, to stand out in the open and make his fight against law breakers and evil doers whether in or out of office, straight from the shoulder, with a moral backbone which fears no danger, and which is not cowed by any threat of personal danger.

Anonymity, whether it be the anonymous letter writer or the anonymous secret worker striking in the dark even if his intention be good, is always the evidence of cowardice. This country needs men of backbone, men who will stand out and fight for the right, and not men hooded or disguised who undertake to carry out any moral reform or religious work, however great may be the need of moral reform and the enforcement of law.

THE GOOD WORK OF THE MACON PRINTING SCHOOL.

IN Macon, Ga., there is a school for operators on linotype and intertype machines which since its organization four years ago has enabled nearly 1000 students to secure a thorough training in this work, including in each case a sound mechanical foundation.

The course of study includes all classes of composition needed in a newspaper plant and these embrace a sufficient number of styles of composition to make the student useful even in a commercial plant.

The school is operated by the Georgia-Alabama Business College, the president of that institution having had a number of years experience in printing and in newspaper work. Discussing the organization and activities of the Macon Printing School as it is known, Eugene Anderson, president of the Georgia-Alabama Business College writes:

"The school was organized in 1919 through a resolution passed by the Southern Newspaper Publishers Convention at Asheville, N. C. W. T. Anderson, publisher of the Macon Telegraph and former president of the Southern Newspaper Publishers Association, was appointed chairman of the school committee, and he was authorized to make through his committee any kind of contract that seemed necessary for the creation of a good and successful school that could train intelligent non-printer students or printer students to become linotype and intertype operators. The idea was to lay a proper foundation so that a larger percentage of the operators would gradually become experts instead of having so many operators in the field who had learned without instruction and who had fallen into clumsy ways that would always deprive them of about half the skill that they should develop.

"At the next convention of the American Newspaper Publishers Association the school was adopted as the official school of that association, and it was equipped with 26 linotype and intertype machines and it has in the four years put into the market nearly a thousand operators, many of whom have taken rank among the swiftest and most expert; all of them having a good mechanical foundation included in their training."

"Among the patrons of the school are some employers of the school who prefer that the operators shall have no previous printing experience; claiming that an intelligent operator with a proper foundation will adjust himself to the styles and work even of a commercial printing plant more easily and more satisfactorily than journeyman printers whose knowledge has been picked up during apprenticeship without guidance. Among these firms are plants that say they can use any promising new operator that has good character, and is clean, intelligent, and has the right view of life."

A BIG RAILROAD CONTRACTS FOR MOTOR TRUCK FREIGHT SERVICE.

IN the recent announcement by the Pennsylvania Railroad Company that it has made a contract with the Scott Transportation Company, of Philadelphia, to carry short distance package freight in the thickly settled territory between Philadelphia, Pa., and Wilmington, Del., (the two cities being about 25 miles apart), is revealed a very forward step on the part of a railroad organization which has the largest gross earnings of any public carrier in the world, viz., over \$2,000,000 daily, according to recent financial statements. The adoption of motor truck transportation for package freight between these cities enables the railroad to abandon the operation of two daily freight trains. A statement issued by the company says:

"In the opinion of the management the public interest will best be served by having package freight between intermediate points in this territory handled as far as practicable by motor trucks instead of by local freight trains. In putting the new arrangement into effect the management believes it is taking an important step forward in relieving railroad facilities, so as to expedite the handling of long distance and heavy freight, for which railroad equipment and facilities are immeasurably better adapted than are motor vehicles on the public highways. It is believed also that the arrangement constitutes a tangible advance in bringing about practical co-ordination of service and facilities between motor and rail transportation."

It appears that the railroad itself will continue to move as heretofore all shipments in carloads, or in lots of 10,000 pounds or more, as well as exceptionally heavy or large articles, in freight cars. Neither will there be any change as to the handling of "destination" cars for package freight which are loaded at certain freight stations in Philadelphia and sent direct to Chester, Pa., and Wilmington by rail, and vice versa, at specified times. Nevertheless, the contract with the motor truck transportation company seems to be a step in the direction of ultimate door to door delivery of package freight by the railroad company; the English railroads have had door to door delivery of package freight for many years and there seems to be every reason why it will finally be fully developed by lines in this country, particularly in thickly populated territory.

The motor trucks will take the freight from the station in Philadelphia to the station in Wilmington and Chester, from which consignees will get it just as they would if it had been transported there by trains. Neither will there be any change made in the freight rates. Two motor trucks are now doing the work formerly done by the two trains that have been taken off.

This action upon the part of the Pennsylvania Railroad Company is a frank acknowledgment of the fact that motor truck transportation in combination with railroad service is most desirable, as the MANUFACTURERS RECORD has said many times, and that there should not be competition, but a spirit of co-operation existing between the operators of motor trucks for public haulage and the railroad managements. Besides, the railroads will gain by encouraging this spirit. Their freight traffic is growing so enormously that to welcome the work which the motor trucks are capable of doing and which can relieve them of burdens which become oppressive, is only wise. We may expect to see the example set at Philadelphia imitated elsewhere in the country.

A CONVENTION OF FARMERS AND OF MANUFACTURERS.

ANNOUNCEMENT is made by the Illinois Manufacturers Association of Chicago, that there will be held under its auspices a national convention of farmers and manufacturers at the Congress Hotel in that city on Monday and Tuesday, January 14 and 15 next. The printed announcement of the convention says:

"Farming and manufacturing are the two greatest industries in America. The prosperity of the country is dependent upon their welfare and their co-operation. Farmers and manufacturers have much in common. Both are producers. Both are managers and employers. Both are property owners. With these thoughts in mind the convention has been called, after several committee meetings in which leading farmers and manufacturers have been in heartiest accord. Subjects and problems of vital interest to farmers and manufacturers will be discussed by speakers of national prominence. Remedies will be proposed. A constructive program of permanent benefit to both farmers and manufacturers will be worked out carefully and adopted after approval of the delegates."

It is further stated that among the subjects for discussion are immigration laws, transportation, freight rates, production costs, legislation affecting farms and factories, co-operative marketing, socialistic and communistic doctrines and their effect upon the prosperity of farms and factories, taxation, and permanent plans for meeting conditions which concern the welfare of both lines of industry. The programme of the convention is to be published later according to this preliminary announcement.

It is possible for much good to come out of this proposed convention, but there is equal opportunity for harm to result. It would be against the best interests of the country as a whole if a farmer-manufacturer bloc should develop out of it, to work in state legislatures and in the national Congress. As the MANUFACTURERS RECORD has repeatedly pointed out there are already too many blocs represented in the legislative work of our country. In all legislative bodies the common good is the ideal which should be striven for, not the interest of this or that particular element in the population, if it is to be obtained by disregard of other interests that may not be represented in them. The opportunity for good will exist; let the convention make the most of it.

THE REASON WHY WE DON'T.

THE Cotton and Cotton Oil news of Dallas, an excellent paper, except for its ceaseless worship at the shrine of free trade, commenting on some features recently given in the MANUFACTURERS RECORD as to the heavy increase in the importation of peanuts, said:

"Why don't we raise our own peanuts under the beneficial tariff?"

The peanuts which we are importing, and the soya beans and these vegetable oils which are coming so freely into the country are produced in the Orient by people whose rate of wages runs from three to five cents a day.

Does the Cotton and Cotton Oil News want to see the American farmer brought down to such a level? We are importing heavily of these peanuts because the tariff on peanuts is not high enough to save us from the destructive power of this Oriental competition. If we fail to protect by an adequate tariff the farmers of the South, and of the country at large, against the wages of the Orient we will permit the utter destruction of agriculture. That issue must be met with a determination to save American farmers from the power of such competition.

AN ENGLISH BANKER ON CAUSES OF DEPRESSION AND UNEMPLOYMENT.

MR. REGINALD MCKENNA, former Chancellor of the Exchequer of England, and regarded in this country as in that, as one of the world's greatest bankers, in a recent address said:

"In this country deflation was actively continued until three months ago and still nominally stands as our official policy. In contrast with the American figures, our bank deposits today show a decline of 10 per cent. This means a severe restriction of purchasing power and a consequent lowering of prices, which is indeed the declared purpose of a deflationary policy. But let us not forget that there are two ways of bringing down prices; we may do so either by an increase of commodities available for purchase or by a forced restriction of purchasing power. The former method is not attended by bad trade, but is slow in producing its effect; the second method is drastic in its operation, but cannot fail to depress trade and cause unemployment."

In 1917 the MANUFACTURERS RECORD warned the bankers of this country, and of the world, that if at the close of the World War they undertook drastic deflation they would inevitably bring about world wide chaos in business. Over and over again from that time on we repeated the warning. It was not heeded. Drastic deflation was put into effect, with the result stated by Mr. McKenna almost in the language used by the MANUFACTURERS RECORD constantly from 1917, as inevitably producing depression in trade and causing unemployment.

Commenting on Mr. McKenna's statement the Bache Review of New York, published by J. S. Bache & Co., leading bankers, says:

"He then proceeds to show how a policy of driving or keeping down prices by restriction of purchasing power must depress trade. If the merchant or manufacturer thinks that prices are going to fall, he will restrict his orders for finished goods or raw materials. Enterprise is checked and orders are not given. Men and women are thrown out of employment, less is paid in wages, and the amount spent upon consumption is reduced."

When drastic deflation was undertaken in this country, and week after week it was announced from the Treasury Department that prices were too high, we said over and over again that any man would be a fool to buy cotton or any other agricultural or manufactured product when he was constantly being warned through the Government's financial sources that prices were too high and must be broken down. The result was as plain as the noonday sun. Poverty and woe followed this deflation, fulfilling every prediction we had made. Men and women were thrown out of employment, (and over 5,000,000 were without work two years ago), and that lack of employment and the breaking down of prices caused universal stagnation.

The right remedy should have been exactly as Mr. McKenna says, "a gradual increase of commodities available for purchase," which though slow in producing its effect, avoids the depression and unemployment of drastic deflation.

In further discussing the subject Mr. McKenna said:

"When unemployment is greatly in excess of the normal we should abandon unhesitatingly the deflationary policy which is the cause of unemployment."

It is well at this late date to review these points because they merely serve to show that the position taken by Mr. McKenna several years ago in opposition to drastic deflation is still maintained by him, and the world has now come to realize that the fight which we made against drastic deflation was justified by the results of deflation. We had

been forced, by a definite inflation policy carried on by our banking system, to the high mountain peak of prices. The only sane and safe way was to crawl down from the mountain top slowly, by increased production, rather than to be kicked from the top of the mountain to the chasm below. One was a sane policy, and would have saved the nation from the poverty which followed. The other was an insane policy of men who had not measured the terrific influence of their proposed policy, or who, if they understood what would happen, definitely preferred to break down prices and bring on poverty rather than to move slowly toward a safer basis.

REPORTED COMBINATION OF POWER COMPANIES OF THE SOUTH TO MAKE OFFER FOR MUSCLE SHOALS.

NEgotiations it is reported have been under way between the Alabama Power Company, the Georgia Railway and Power Company and the Tennessee Electric Power Company looking to a combination offer to the Government for Muscle Shoals. The report given in some of the daily papers is said to be premature and no specific information is available at the moment, but for some time there have been rumors that a new proposition of some kind would be made to the Government for the purchase of Muscle Shoals.

The three power companies mentioned, as well as the Southern Power Company, are already connected up in such a way that when power is short with one company through drought or other troubles it can be immediately switched in from other companies. In this way many mills in the Carolinas have in times past been enabled to operate to full capacity when droughts had cut short the supply of the Southern Power Company, and the power generated in Alabama has been used to run the mills.

This interchange of power facilities is the first great super-power movement in the country and is now commanding the attention of all great electrical experts and of the Government itself. Out of this supersystem, put in operation by these Southern companies, will doubtless eventually come a system of superpower transmission throughout the nation which will make impossible shortage at any given point at any time, and enormously expand the use of hydro-electric power in manufacturing enterprises, and ultimately probably to a large extent, on the farms.

The country will await with keen interest details in regard to the reported combination offer to be made for Muscle Shoals.

IMPORTATION OF CHINESE EGGS.

IF reports are true as to the conditions under which Chinese hens are fed and Chinese eggs produced, the latter should be excluded from this country, though in a recent letter to the MANUFACTURERS RECORD, Secretary Wallace of the Department of Agriculture stated that no tests which had been made indicated that the method of feeding or the kind of food which hens have has any deleterious effect upon the eggs. Nevertheless, many men engaged in the egg producing industry insist that proper feeding is essential to the production of wholesome eggs and the egg consumer certainly, if he is at all particular as to what he eats, is better satisfied when he knows that the eggs are laid by hens which are fed only on wholesome food and are taken care of in such a way as to prevent any possible contamination from the food they eat or the water they drink.

Reports to the Department of Agriculture show that during the ten months, ending October 1923, the importation of eggs into this country, practically all coming from China, amounted to 15,000,000 pounds of dried and frozen eggs. Of

these imports, 9,460,000 pounds were of frozen eggs, and 1,600,000 pounds of dried eggs. These Chinese eggs, the dried eggs and the egg powders coming from China are mainly used by large bakeries, confectioners and other wholesale consumers.

The MANUFACTURERS RECORD has repeatedly urged in the light of reports as to the offal on which Chinese hens feed, that their eggs should be excluded from this country, and even though Secretary Wallace has not been able to show that such eggs are unsanitary, it can certainly be said that they are undesirable.

We have asked Secretary Wallace if he will not have an investigation made as to the conditions under which chickens and eggs are produced in China.

STORING COAL UNDER WATER.

AN engineer and chemist who has given much study to the question of coal storage, in forwarding to the MANUFACTURERS RECORD a dispatch sent from Zanesville, Ohio, to the New York Times about an extensive enterprise for coal storage under water, writes:

"It has been heard that consumers who undertake sub-aqueous storage always have found difficulty in getting delivery of coal. Certain it is that every attempt to teach the public the simplicity of solving the coal problem that way is countered by grave engineering articles in the press and in the technical papers condemning the method, and extolling the beauties of open-air storage with the aid of costly mechanism built by powerful engineering corporations.

"While there may not be increase of efficiency by virtue of sub-aqueous storage, it has been abundantly proved that coal so stored does not suffer the deterioration that takes place when stored in piles on the surface. Just so long as oxygen can have access to coal the oxidation of the coal must and does follow. Every molecule in the coal that is oxidized is just that much heating value lost."

The dispatch which was enclosed was from Zanesville, Ohio, stating that the Ohio Power Company will build a coal bin 30 feet deep and a mile and a quarter long, when its new \$10,000,000 electric generator station is completed. An old canal, built by the state, is now being dredged for this purpose, and when completed will be concreted and filled with water. In this big bin the coal will be stored, practically under water, to prevent spontaneous combustion and to insure against a repetition of the disastrous fire which recently destroyed more than \$90,000 worth of coal at the company's plant in West Virginia.

This new water fuel bin will have a capacity of 400,000 tons of coal.

ANOTHER LIE AGAINST THE SOUTH.

MR. J. W. E. MOORE, of Brownsville, Tenn., writes to the MANUFACTURERS RECORD vigorously criticizing an article in the Outlook in which referring to the conditions at Montgomery it is said:

"At any hotel or restaurant in Montgomery delicious thick cream can be secured at any time, a condition unknown elsewhere in the South; for though the South has been an agricultural region for three centuries the cow has been practically neglected and common milk is ordinarily expensive and difficult to get."

Mr. Moore turns loose his vials of wrath upon the Outlook for publishing such a false statement, and upon the writer of the article for knowing so little about the South. He very properly calls attention to the fact that many parts of the South are noted for their dairy cattle.

It seems almost hopeless and useless to waste time in

criticizing a statement so utterly without any truth in it as that published by the Outlook, for such papers will, as they have done for years, permit the South to be vilified absolutely without regard to the truth of the matters stated.

"The South" is a rather broad term. That section stretches from Maryland to Texas. Many parts of it have been noted since long before the Civil War for their splendid cattle and for the abundant supply of good milk and cream. There are some sections of the South in which milk and cream have been scarce, but these small sections do not at all represent the South, but only an infinitesimally small part of it. Intelligent men everywhere, and the editor of the Outlook ought to be a man who could be classed under that heading, know full well that there is no finer cattle country in the world than a very large proportion of the South.

And yet the Outlook permits one of its correspondents to say that "cows have been practically neglected and common milk is ordinarily expensive and difficult to get in the South."

Well may it be said "What fools these mortals be!"

Our Book Entitled "The Prohibition Question Viewed From the Economic and Moral Stand-point" Still Exerting a World-Wide Influence.

United Kingdom Alliance,
President: The Rt. Hon. Lieut. Jones.
Superintendent, West Riding and Northern Areas:
Mr. J. Finlayson,

37 Cliff Road, Headingley, Leeds, November 28.

Editor Manufacturers Record:

Sometime ago your office published, in book form, a large number of replies to questions which had been sent out from the office of the MANUFACTURERS RECORD to numerous manufacturers asking them to state what effect prohibition had had upon their various industries.

I have been asked, by manufacturers in this country, to get into touch with you and get a number of copies for them.

I understand that the publications in English money are about 2/-each. I therefore enclose money order for 15/-, hoping you will manage to send me six or seven publications as early as possible.

I may say that my work rests chiefly amongst the commercial community in this country, and they are taking a deep interest in what is taking place in America. Should you have any other publications bearing on this subject will you kindly let me know and oblige.

JOHN FINLAYSON.

Standard Encyclopedia of the Alcohol Problem.

Westerville, Ohio., December 14.

Editor Manufacturers Record:

I am much obliged for your letter of the 12th inst., and for the copy of your booklet "The Prohibition Question."

I have pleasure in enclosing herewith postage stamps to the value of 50 cents.

With reference to the last paragraph of your letter, you are probably aware that the booklet (possibly the first edition) has been published in Spanish in Santiago, Chile, as a contribution to the efficient discussion of subject XVIII of the Fifth Pan-American Congress. This subject was "The means tending to the progressive diminution of the consumption of alcoholic drinks."

ALBERT PORTER,
Managing Editor.

Contract for the erection of the proposed \$2,000,000 hotel at Yorktown, Va., for the Yorktown Holding Co., will probably be awarded to the John T. Wilson Co., Inc., of Richmond. The company advises that no definite contract has been signed, but it has been assured it will be awarded the contract when the owner is ready to build. McKim, Mead & White of New York are the architects.

Nineteen Hotels Costing \$1,000,000 Each or Over Completed and Opened in South in 1923.

SIX LOCATED IN FLORIDA CITIES—TEXAS AND ARKANSAS ALSO ACTIVE IN HOTEL CONSTRUCTION.

By E. J. WILLIAMSON, Associate Editor, Hotel Gazette, New York.

Sixty-three hotels, each costing \$1,000,000 or more and nineteen of them in Southern cities, have been completed and opened since last January 1 in the United States, or will have been opened by January 1, 1924. Of these, five contain 1000 rooms or more. One is the new Hotel Brown, opened at Louisville, Ky., on October 28, built and equipped at a cost of approximately \$6,000,000. Others include the 1200-room Hotel Shelton, opened in New York November 15; 1100-room Hotel Statler, Buffalo, N. Y. May 19; 1000-room Hotel Biltmore, at Los Angeles, Cal., October 1, and the residential hotel built by I. Fluegelman, secretary of the New York City Hotel Association and opened in New York September 15.

Southern hotels costing \$1,000,000 or more each which have been opened this year include:

Bon Air-Vanderbilt Hotel, opened January 8 at Augusta, Ga., containing 300 rooms and baths and built at a cost of \$1,750,000. Immediately after the opening, plans were prepared for an addition which was opened on December 15. This addition contains 100 rooms and baths and was erected at a cost of \$500,000.

Francis Scott Key Hotel, Frederick, Md., opened January 8, with 250 rooms and baths, was erected at a cost of \$1,000,000. Hotel Angebilt, Orlando, Fla., opened March 14, with 250 rooms and baths, built at a cost of \$1,250,000; Robert E. Lee Hotel, San Antonio, Tex., opened May 26, with 200 rooms and baths, built at a cost of \$1,000,000; Stoneleigh Court Hotel, Dallas, Tex., opened October 18. This is a high-class residential hotel, but with transient accommodations, containing 350 rooms and 200 baths, built at a cost of \$1,500,000.

West Virginia Hotel, Bluefield, W. Va., opened November 15, with 350 rooms and baths was built at a cost of \$1,250,000; Mason Hotel, St. Petersburg, Fla., is completed and will be ready for formal opening December 30. It contains 250 rooms and baths and was built at a cost of \$1,250,000; Hotel Soreno, St. Petersburg, Fla., with 250 rooms and baths, was built at a cost of \$1,400,000. Construction of an \$800,000 addition to this new hostelry is scheduled to begin immediately after the close of the present season; Suwanee Hotel, St. Petersburg, Fla., with 118 rooms and baths, was built at a cost of \$1,000,000 and opened December 1; Ponce de Leon Hotel, Miami, Fla., opened December 1, was erected at a cost of more than \$1,000,000; Parkview Hotel, a residential and transient property at Memphis, Tenn., containing 450 rooms, was built at a cost of \$2,500,000 and opened November 15.

Coronado Hotel, St. Louis, with 400 rooms and baths, and opened December 15, was built at a cost of \$2,500,000. The Coronado is exclusively "stag," operated on the plan of the Shelton, Claman, Allerton and other hotels in New York.

Sir Walter Raleigh Hotel, Raleigh, N. C., with 250 rooms and baths, opened November 20, built at a cost of \$1,250,000; Nautilus, at Miami, Fla., opened December 15, with 250 rooms and baths, built at a cost of \$1,250,000; Forest Park Hotel, St. Louis, with 300 rooms and baths, opened December 1, built at a cost of \$2,000,000; Francis Marion Hotel, Charleston, S. C., with 292 rooms and baths, built at a cost of more than \$1,000,000, and scheduled for formal opening December 31.

The Hotel Raddison, opened in Kansas City, September 12, contains 352 rooms and 148 baths and was built at a cost of

\$1,500,000. The Kansas City Athletic Club and Hotel, opened October 4, with 312 rooms and baths, represents an investment of \$4,500,000. This is an unusual combination of club and transient hotel, catering to outside business. Other hotels opened in Kansas City include the State, 208 rooms, \$500,000; Walnut, \$500,000; Chatham, 117 rooms, \$350,000, and the Hotel Montrose, \$400,000.

In addition to this list, there are a number of \$1,000,000 hotels in course of construction in various Southern cities, some of them nearly completed and others still in early stages of construction. One of the most notable, expected to be ready for opening early next Spring, is Hotel Biltmore at Atlanta, a \$6,000,000 project. Other properties, construction on which is well under way, include the \$2,500,000 Hotel Mayo at Tulsa, Okla., which is practically completed and will be opened in January or February, according to present prospects; \$2,000,000 Tri-State Hotel, to be opened shortly after the first of the year at Memphis, Tenn.; new Hotel Peabody, a \$5,500,000 property, construction on which began a few weeks ago; new Arlington Hotel at Hot Springs, Ark.; to be built at a cost of \$3,000,000, replacing the old Arlington which burned a year or so ago. The new Arlington will be eleven stories high and will contain 600 rooms. Two Texas hotels, each costing well over \$1,000,000, are being rushed to completion. One is the Sam Houston, 225 rooms and baths, at Houston, and the other is the Stephen F. Austin Hotel at Austin, a 250-room hostelry.

The new Hotel Washington which E. Kirby Smith, Shreveport, La., and associates are building in that city, is well along and will be opened some time next summer.

In addition to the new Biltmore, Atlanta is to have another large hotel, the Henry Grady. This is to have 500 rooms eventually, but only 250 rooms will be built this year at a cost of approximately \$1,300,000.

About \$1,500,000 is being expended in construction of the new Battery Park Hotel at Asheville, N. C., and a new million-dollar hotel is in final stages of construction at Jackson, Miss. Citizens of Durham, N. C., have completed financing a million-dollar hotel for that city, construction of which is expected to begin shortly after the first of the year.

Six of the South's \$1,000,000 hotels opened in 1923 are in Florida cities, one of the most active states in the union in the matter of new hotel construction. If present plans materialize, Florida in 1924 will surpass her 1923 record, as a number of new hotel projects, several of them in the \$1,000,000 class have been announced. It is estimated that the aggregate cost of new hotels built and opened in Florida this year exceeded \$18,000,000. A list of those costing less than \$1,000,000 includes:

The Pancoast, Miami, 150 rooms, \$900,000; Henrietta, Miami, 300 rooms, \$800,000; Fort Dallas, Miami, 85 rooms, \$300,000; Aroyo Gardens, Daytona, opened February 10, with 150 rooms, \$500,000; Fort Pierce, Ft. Pierce, 125 rooms, \$325,000; Heil, St. Petersburg, 118 rooms, \$750,000; Coquina, Ormond Beach, 150 rooms, \$500,000; Mira-Mar, Sarasota, 150 rooms, \$500,000; Fort Pierce Ft. Pierce, 125 rooms, \$325,000; Alma, West Palm Beach, 106 rooms, \$350,000; Haven, Winter Haven, 132 rooms, \$525,000; Royal Palm, St. Petersburg, 100 rooms \$500,000; Hotel McAllister, Miami, 100-room addition, \$150,000; addition to Hotel Wofford, Miami, \$200,-

000; Hillcrest, St. Petersburg, 30 rooms, \$50,000; Ponce de Leon, St. Petersburg, 75 rooms \$200,000; Balmoral, West Palm Beach, 40 rooms, \$100,000; Tarpon, Ft. Lauderdale, 40 rooms, \$75,000; Calida, Callahan; Coral Gables, Miami, 50 rooms, \$200,000; New Hotel Wales, Lake Wales, 40 rooms, \$90,000; Indian River Hotel, Rockledge; Atlantic Hotel, Ft. Pierce, 25 rooms, \$50,000; Nan-ces-o-gee, Sebring, 60 rooms, \$100,000; Vereen, Miami, 92 rooms, \$300,000; Billows, Palm Beach, 70 rooms, \$160,000; Royalton, Miami, 55 rooms, \$100,000; Dolphin Miami, 105 rooms, \$225,000; Santa Rosa, Sebring, 20 rooms, \$30,000; Mount Dora Hotel, Mt. Dora, 30 rooms, \$60,000; New Hotel at Keystone Heights, built at a cost of \$150,000; El Verano, West Palm Beach, 160 rooms, \$500,000; Hollywood Hotel, Hollywood-by-the-sea, 86 rooms, \$200,000; Cherokee, Tallahassee, 91 rooms, \$200,000; Pearl, Orlando, 22 rooms, \$50,000, and a number of others.

In addition to the \$1,500,000 Bon Air-Vanderbilt Hotel and its \$500,000 addition at Augusta, Ga., that city also boasts the new Hotel Richmond, opened May 14. The Richmond was built at a cost of \$800,000 and contains 210 rooms and 190 baths.

Next to Florida the most active Southern states in new hotel construction this year were Texas and Arkansas, a large number of moderate-sized hostleries having been built in various oil towns and other cities. There also was great hotel construction activity in the oil towns of Oklahoma. In these states, except for the hotels already mentioned, the size of new structures was from 25 to 100 rooms, the cost ranging from \$50,000 to \$250,000.

Other notable additions to Southern hotels during the year include the Hotel Marquette, Memphis, Tenn., 75 rooms, \$200,000; Colonial, Springfield, Mo., 60-room addition, \$125,000; LaSalle, New Orleans, 125 rooms, \$325,000; O'Neill, Palestine, Tex., 75 rooms, \$200,000; Fort Sumter, Charleston, S. C., 175 rooms, \$350,000; Franklin, Spartanburg, S. C., \$350,000; Dalton, Dalton, Ga., \$170,000; Frances, Macon, Ga., \$150,000; addition to Hotel Vance, Statesville, N. C., \$100,000; Montague, Marshall, Mo., \$100,000; Ozarks, Springfield, Mo., \$250,000; Capitol, Frankfort, Ky., \$250,000; Roland, Bristow, Okla., \$260,000; Stonewall Jackson Hotel, Staunton, Va., \$500,000, and others.

Throughout the United States more than 270 new hotels, each of 40-room capacity, or more, have been completed and opened since January 1, or will have been opened by January 1, 1924. This does not include a large number of smaller capacity than 40 rooms, mostly resort hotels and inns in the smaller towns, built as a result of the ever increasing popularity of long-distance motor travel. The estimated aggregate cost of the 270 hotels of more than 40-room capacity is approximately \$230,000,000, a sum which established a new high water mark in hotel construction in a single year. The two costliest hotels of the year were E. M. Statler's new 1,100-room hotel at Buffalo and John McE. Bowman's new Hotel Biltmore at Los Angeles, each of which cost about \$9,000,000. Hotel Shelton, New York, is the largest hotel built this year. It was erected at a cost of \$8,000,000 and contains 1,200 rooms.

The South's showing of nineteen million-dollar hotels stands out all the more, when it is realized that thirteen of the sixty-three million-dollar hotels of 1923 were erected in New York City, eight in Chicago, and three in Philadelphia. Thus, twenty-four of the sixty-three hotels were built in the three largest cities of the country, leaving thirty-nine for all the rest of the country, almost half of these being built in Southern cities.

The Louisiana State Board of Education, with offices at Baton Rouge, plans the expenditure of \$1,712,000 in the next two years for improvements at six state institutions.

\$6,750,000 IN TWO BUILDINGS PLANNED AT ST. LOUIS.

Telephone Company to Construct \$3,250,000 Automatic Exchange—\$3,500,000 Office Building Also Under Consideration.

The Southwestern Bell Telephone Co., of St. Louis, E. D. Nims, president, has purchased that portion of the block bounded by Tenth and Eleventh, and Pine and Chestnut streets, which it did not previously own, and it is stated that a \$3,250,000 automatic telephone exchange will be erected. The company is also reported as planning the erection of a \$3,500,000 office building. With reference to these buildings, Mr. Nims wires the MANUFACTURERS RECORD:

"Have not yet made any plans or decided upon dimensions or cost of buildings to be constructed on property we have just purchased. Will be some time before they are prepared."

The first building to be erected, it is said, will house a machine switching unit, which will take over one of the downtown exchanges, the cost of the building being estimated at \$750,000 and the equipment at \$2,500,000. It will be seven stories, having the height of eleven stories because of the dimensions of the machinery to be installed. Work is expected to begin late in January and the building ready for equipment within eighteen months.

Tentative plans provide for an office building of 20 stories for the use of the company's administrative and clerical forces numbering about 1500. There will also be space for expansion. The remainder of the site at the corner of Eleventh and Chestnut streets will probably be used for a building to house additional machine switching units.

Seven Hotels to Be Operated by One Company as Result of Big Merger.

Raleigh, N. C.—An important hotel merger affecting three hotels in this city has been announced as the outcome of a recent meeting in Winston-Salem, when the Interstate Hotel Co., which already controlled four hotels in North Carolina and Virginia, took over the Sir Walter Raleigh, which will soon open, the Yarborough and the Bland, all in this city. Hotels now operated by the company include the Robert E. Lee and Zinzendorf in Winston-Salem, the Selwyn of Charlotte, and the Petersburg of Petersburg, Va. The Interstate company is said to own the furnishings in all the hotels except the Petersburg.

Headquarters of the Interstate Hotel Co. will be transferred to the Sir Walter Raleigh in this city and its new officers will include the following of Raleigh: B. H. Griffin, president; T. L. Bland, vice-president and general manager, and V. St. Cloud, secretary and treasurer.

The authorized capital stock of the company is \$1,000,000 with a paid in capital of \$675,000.

Purchase Public Utilities in Florida.

An announcement has been made at Orlando, Fla., that W. S. Barstow & Co., Inc., of New York, has purchased the electric light plant at Orlando of the Cheney interests, together with their gas and ice plants, the deal also including the purchase of power plants at Deland, Daytona Beach, Eustis, Leesburg and Lake Wales. With reference to the purchase, W. S. Barstow & Co., Inc., wire the MANUFACTURERS RECORD that they have no information to give out.

It is stated that Deland, Daytona Beach, Eustis and Leesburg will be supplied with power from the plant taken over at Orlando.

Industrial Development Essential to Agricultural Prosperity.

By FREDERICK H. McDONALD, Managing Director, Georgia Industrial Bureau, Atlanta, Ga.

After many years of preparation and approach, the South is just over the threshold of a mighty and Herculean industrial era. Because of this section's long recognized agricultural advantages and activities there is in some quarters an incomplete realization of the tremendous import of this development—of the real prosperity that is already under way.

There is even an opinion in some quarters, particularly among those associated with farming interests, that manufacture and agriculture not only are distinct, but actually conflict with each other; that one can be developed only at the expense of the other.

The intent and purpose of the present writer is to show that on the contrary manufacture and agriculture, as two essential phases of human activity, are dependent upon one another; that not only can they be developed most effectively together, but that even our present tremendous agricultural advance has been dependent upon a correspondingly preceding advance in manufacturing.

Our country is rich—in energetic and characterful men and women. Take them away, and we would have again the land of the Indian. Its native resources would be the same. Minerals, forests, soil, water-power, fishing, grazing—all these were here when Columbus came, just as they are today. We live and thrive where the Indian maintained a bare and primitive existence. The difference lies in our application of human industry to specialized and highly developed lines of endeavor; the farmer to his farm, the industrial worker to his task.

We no longer look to the family to sustain itself as an independent unit; to grow and prepare its own food; to kill its own meat and tan the hide; to produce the raw material, and spin and weave it into cloth, and fashion the cloth into garments; to cut its own timber, and hew it, and build it into houses; to dig its own ore and make its own tools. The Indian family and the colonial settler family were self-sustaining because they had to be. The modern family is not self-sustaining in the sense of self producing all of its requirements.

For the purpose of this discussion we have divided our modern scheme of existence into four major phases: (1) production of raw material; (2) fabrication of this raw material into useful products; (3) distribution of the finished product through wholesale and retail channels and by means of a highly organized transportation and communication system; and (4) the inter-relating of the three other phases by the function of the specialist—the engineer, the lawyer, the manager, the physician, the chemist and others.

Production of raw material could no more be separated from this relation than manufacture could be taken out and treated as a thing apart, without raw material to work upon and without distribution to give it profit.

Farming—actual tilling of the soil—is a detail of agriculture, which includes animal husbandry and other special activities.

Agriculture is but one of several divisions of production of raw material. Mining is another. Lumbering is another.

Quantities of farm products in their raw form are consumed where they are grown, or are exchanged by one farm with another. But a much larger portion of the total products of agriculture are put through some process of fabrication, thus making them marketable in all seasons instead of just the growing season. Fruits and vegetables are

dried or canned or held in cold storage. Wheat is processed and milled and baked into bread. Cotton is spun and woven into a multitude of useful articles. Wool, flax, tobacco, peanuts, and practically all other farm products, are profitable to the farmer because—and for no other reason than because—they undergo processes of manufacture that preserve them and adapt them to thousands of varied uses in the markets of the world.

Without manufacture, farming and all other activities that produce raw material would revert to their primitive stage where the family was the unit and there was no specialization.

Markets are created by demand, not by supply. Demand grows out of existing or probable human needs or desires. The usefulness of any article offered for sale is the determining factor in its demand, and hence in its marketability. Few native products are useful in their raw state. They must be made useful by fabrication into some form in which the consumer demands or can use them.

Either an actual or potential market must exist before manufacture can be undertaken with any hope of profit.

Manufacture itself furnishes the primary market for raw products. It furnishes in fact two markets; one for the raw product that is to be converted into some useful form to meet a demand; and one for the raw product that is to be consumed as food or fuel or what not, by the non-productive workers engaged in industry and in commerce.

One great problem that has faced the Southern farmer is the lack of largely populated and non-productive industrial markets like those of the further advanced industrial regions elsewhere.

Under this condition it has not been uniformly profitable to produce perishable farm products in quantity; for as soon as local demand was satisfied it became necessary to hunt distant markets for the excess. Not only has some means for converting these products into non-perishable form been necessary, and usually lacking, but also it has called for and resulted in the organization of intensely specialized distribution methods for such products, like peaches and watermelons, as through some fortunate climatic circumstance could enter distant markets at a time when other or local production and competition there was impossible.

On this one point alone, regardless of all others more important, industrial development is of direct benefit to agriculture. The Southeast needs a greater demand at home as well as better methods for serving the distant demand. It needs the multiplication at home of densely populated, food-consuming industrial centers, with the resulting demand for its raw farm products; and it needs also the establishment of many scattered canning, curing, dehydrating, packing, preserving or refrigerating plants so located that every farmer has reasonable access to a local buyer for all the perishable products he can raise.

The creation of these centers of population, producing nothing for their own consumption, is accomplished only through the development of the three other phases of our human activity—manufacture, distribution, and the professions.

Few realize the vital part manufacture has played in making even possible our great farming production of today.

Were it not for manufacture, modern farming tools and implements—plows, cultivators, reapers, tractors, etc.—our farmers would be restricted to hand labor.

And were it not for the cotton gin and the spinning frame

the fabrication of our present cotton crop would be impossible and therefore its full production would be futile. Today's methods of manufacturing and processing wheat and tobacco make possible the enormous production of these two important crops.

All these things—these plows and gins and looms—have to be manufactured somewhere. As time goes on, and tools and machinery are improved, the products of manufacture will continue to lighten the labor and increase the production of the farmer, making him less and less dependent upon a fluctuating labor supply, at the same time that it develops and intensifies the demand for his products in some processed form.

The very existence of modern farming depends upon manufacture, just as the very existence of a large part of manufacture depends upon farming to furnish its quota of raw products.

Practically every essential of our daily life, in fact, is a manufactured product.

The South produces even yet, but a minute portion of the total manufactured products that its people consume. We still must send elsewhere for our household furnishings and equipment, our clothing, our farming tools. The farmer frequently buys back, in finished form, for the personal use of himself and his family, the very things which he produced and sent away. He pays a heavy toll upon the necessity of having them shipped to distant points, manufactured there for his own use, and shipped back to him.

If through any process, we can hasten the manufacturing development of the South, we not only provide ready local markets through the employees and associated consumers, for perishable farm products, but we make it possible to use a great amount of our own raw materials and farming products in these manufacturing plants.

We of the South so long have regarded our section as essentially agricultural, that we have failed to grasp the fact that we are increasingly becoming an industrial region.

The fourteenth census of the United States, reporting Georgia's crops and manufactured products for 1919, for instance, discloses that Georgia's agricultural products were valued at over \$540,000,000. Only \$300,000,000 of this value represented cotton. On the other hand, manufactured products were valued at \$690,000,000; a difference in favor of manufactured products of nearly thirty per cent.

Such actual facts as these are necessary to drive home the increasing importance of manufactures in this territory.

The actual situation, in brief, is that though a large proportion of the state's population is engaged in farming and agricultural production, Georgia is actually producing over a fourth as much again in manufactured products.

This is occurring with a comparatively meagre local development, and a particularly insignificant use of Georgia's total natural resources and products. The possible output of minerals, clays, ores, and various farming products that can be manufactured profitably, but which are as yet unused in Georgia, offer a ready and almost unlimited source of wealth.

There are, as has been noted, those who contend that manufacture can proceed only at the expense of agriculture. Let us again take Georgia, the largest state east of the Mississippi, and in a recognizably agricultural area, and compare it with Pennsylvania, a smaller state, but a long recognized industrial center.

Here are some comparative statistics that will be illuminating:

1920 CENSUS			
Area in sq. mi.	Value of Farm Crops For State	Value of Manuf. Per sq. mi.	Value of Manuf. Products
Pennsylvania ..	45,126	\$410,000,000	\$9,085
Georgia	59,265	540,000,000	9,111

Thus we see that Georgia produces thirty per cent more in farm products than Pennsylvania. But Georgia has ap-

proximately thirty per cent more area than Pennsylvania. Therefore, square mile for square mile, Pennsylvania produces as much in value of farm crops, as Georgia. Yet, Pennsylvania's manufactured products are over ten times the value of Georgia's.

Georgia has the same natural prospects as exist in Pennsylvania. Not only can Georgia's farm products be increased in value, but it can go further and increase the total value of the state's output by developing the manufacturing possibilities that now are lying idle.

There is tremendous opportunity to produce in the South such things as wearing apparel, furniture, machinery, farming tools, and preserved food products, instead of going elsewhere to buy them. There is no reason why all these should not be manufactured profitably within our own states.

The South will reach the degree of prosperity due her through the possession of native resources and through the fine type of her citizens, when we not only produce as many as possible of our raw materials, whether as farm products or ores, or minerals, or lumber, but also with our own labor shape them into finished products for sale among our own citizens at a cost much lower than would have to be asked elsewhere.

In addition to the furnishing of local markets for our products, and a cheaper market for our needs, increased industrial development in the South will result in other indirect, but vital benefits.

The revenue on which a state operates arises from the value of taxable resources within its boundaries.

If there were farming properties only, and no other, the farmer would have to pay the total of all state taxes. Manufacturing enterprises which can be developed within, or induced to enter the state, immediately begin to contribute, through their taxes, to the state's revenue. Manufacturers assume an increasing proportion of taxes, and thus lessen the proportion of the farmer.

In producing a larger total of revenue for a state by increasing the number or value of manufacturing plants within the state, we make matters just that much easier for the farmer.

A state's development can be measured by the size, number, and the equipment of its educational institutions. Only states that are prosperous through tax income, can afford adequate provision of this necessity. Unless the farmer is to bear the total expense of educational facilities, it is necessary to bring in manufacturing or distributing development that will assume their part of the burden.

Another aid which manufacturing enterprises offer a state is in furnishing local training and work for its school and college graduates. This applies particularly to technical graduates.

Until recently it has been necessary for our technical graduates to leave the South if they were to seek the experience and training that would make them finished experts in their lines.

Too small a proportion of these men and women ever return.

Obviously it is unfair for the South to pay for the education of her sons and daughters, only to have them go to other parts of the country to aid in the development of the very manufacturing enterprises that ought to be located in our own section.

The only way in which we can keep our own sons and daughters at home is to have, in the South, those manufacturing enterprises which not only will furnish the necessary extra taxes to keep our schools and colleges adequately equipped, but also will supply opportunities of training and occupation for these graduates.

In proportion to our increasing industrial development will the entire level of prosperity be raised in the South.

The Romance of Southern Pine.

No. 3—THE FRONTIER OF THE SAWS.

By EARL DIONNE, Elizabeth, La.

During a timber workers' strike a number of years ago an old darky named Davis, working for old man MacFarland at Pineton, was one of the strikers.

Old Man Mac had carried Davis on his payroll for twenty years and the story of how he rebuked him for his ingratitude is local history.

Mac took on about three snorts of hooch one day and then happened to meet Davis in the commissary. He addressed him thus:

"Mr. Davis," he said, "Oh, Mr. Davis, when are you going to let me start up my mill? Mr. Davis, I've made your living for you for twenty years, and now, Mr. Davis, you have shut my plant down. I want to ask, Mr. Davis, when you are going to let me start up my mill?"

And as there seemed to be no answer forthcoming from the popping-eyed negro, Old Man Mac crowned him with an iron weight that was handy.

For proof of this story the natives will show you today the weight he hit him with, with a dent in the middle which they claim came from the iron bending over the curly dome.

Well folks, here's the whole lumber industry today asking much the same question.

It has served you and me for a century or more and it's at the end of its resources.

We have got to answer that question—"When are you going to let us start up our mills again?"

"We've taken the rain and the cold and the heat in your service.

"We've sent our young men to be crushed by falling trees, gashed by flying saws, burnt by escaping steam.

"When oxen failed to do your work we bought horses and mules. When your demands were such that they could no longer serve we invented the steam logging machines.

"We have bred a race of men unafraid, men large of brawn and brain and courage, men who can serve you till eternity in the securing of the materials of your home building—now, will you let those men die out? Or move out?

"When are you going to help us start our mills again?"

It seems a pity, friend, that we should have the finest tree growing country in the world and should have spent generations in educating an army of men to transform these trees into articles of service, of necessity, and then fail to use our land and have to tell these men that we have no further use for them; that we prefer to pay a \$20-a-thousand-feet freight bill and buy from the Pacific Coast or Mexico, rather than do a little thinking, and a little work, and a little co-operation now.

Let's grow timber.

Let's use our Southern long-growing season, our happy sunshine, our mellow nights, our millions of acres of unused soil in producing pine for the future.

Let's keep together these men whose education in the production of lumber we have paid for.

It isn't sentiment.

It's dollars.

"It's for all us to figure out and we can start at home, in our own wood lot or in the picnic grounds if nowhere else."

Let's teach ourselves not to destroy the smallest tree wantonly.

Let's teach our campers better fire manners.

Let's, as we can, talk fire protection for the lands in our own neighborhood.

That is the big thing.

If every community in the South would see to it that its section for a farmer's hauling distance around would not be burnt over yearly, our victory over a treeless future would be well begun.

Nature will do her work if we just do not impede her.

There was talk some time back, so the story goes, of taking a slice off the west side of Florida and giving it to Alabama. The natives in the section under consideration protested. They said that they had always heard that Alabama was an unhealthy state to live in and therefore they didn't want to live in Alabama.

If we do not give attention to tree growing we are going to be just like those folks, we are going to be living in a mighty unhealthy country in a business way and without having to move to get there.

Timber has played a master part in the building of the South.

It has done, is doing, and will do, many constructive things.

It will pay taxes.

It will afford employment.

It will furnish the railroads business.

The taxes will build and maintain our roads and schools and public utilities.

The employment will make good citizens, will create industries, will uphold our social life.

Take away our timber and our population will dwindle, our social life deteriorate, our industries stagnate, and our transportation discontinue.

Take away the timber from the South and thousands of little towns will practically disappear, with a consequent train of business depression.

Blow the last whistle on all our Southern mills tomorrow and next week we will see the most unparalleled series of financial disasters and unemployment the country has ever known.

Those whistles are blowing already, not all together but here and there, and the disaster will be as great in the end, even though less sudden.

And you and I, friends, are responsible for the past and the future.

The lumberman has no more problems than any other citizen. He has learned his business, he is a skilled man.

He has been our servant, he has, at our order, furnished us our homes of wood.

He was created and maintained by our necessity, he has worked as we willed and his payments have been what we would give.

He is an expert in his line, and that line is producing lumber from trees, and if we have had him cut most of the trees, who can blame him?

He is the pioneer, his destiny is the frontier of the saws.

His tools cleared the way for the colonists of the Atlantic Coast; he blazed the way westward so civilization could follow; where he went there went industry and schools and churches and human happiness.

The saws cut their way westward to Michigan. There is a love-sick ballad of a woodsman in the early days, a lumberjack of Maine, who, disappointed in love told the world that "he'd shoulder his peavy and he would go West; he'd go to Muskegon and there he'd find rest."

But the saws rolled over Muskegon these long years gone and the frontier crept to Wisconsin and Minnesota, and then

jumped wide and clear over the plains westward and southward.

And in the South the frontier crept westward less speedily but crept it did from the Atlantic over the Virginia and the Carolinas until it merged with the wave from the north.

Today the saws are on their last frontier.

Please understand, however, that there is no immediate danger of a timber famine. The west has many, many years ahead. The South has—not so many.

There are mills in the South today with twenty to twenty-five years cutting. There are one or two that are cutting so that their timber will last indefinitely.

But the majority are looking at the end.

It may come with some of them in five years, with most of them it will come in ten.

And, did you know, Oswald, that many of them want to hurry that end?

Did it ever occur to you that the reason they are impatient for the end is that you and I have made it hard for them to carry great bodies of timber?

Timber, Ossie, is like the herd of buffaloes we talked about in a previous article, it hasn't any value until it's converted into something useful.

Slap a man's sized tax on a body of it and after you have carried it for ten or fifteen years you too would be anxious to let someone else have the pleasure, if any.

And as to carrying cut-over land with its load of yearly taxes until it bears fruit, thirty or forty or fifty years—nay, nay.

Too much is enough of anything.

We may theorize, but the lumberman *knows*.

A big western concern recently, in a conference with government forestry officials, after showing that on representative areas of timber land taxes have increased over 2000 per cent during the company ownership, offered to turn over to the state or government 175,000 acres of cut-over land, to bear all the cost of fire protection, and to split the proceeds fifty-fifty when a crop was matured—provided that the other party pay the taxes for the period.

It was not accepted.

Reforestation, friends, is not attractive to private capital. There are a few lumbermen, as stated previously, who are trying it and who will probably, like the brook, run on forever. More power to them.

But one or two cannot do the work.

Most real lumbermen are thoroughly in favor of forestry work even though they do not agree with the methods proposed. They are willing to do their share—but somebody else has to do something.

A young man was asked if it was possible to hug a girl while driving an automobile.

"Well," he said, "it depends on the co-operation."

The lumbermen are the logical ones to solve the timber growing problem, they know worlds more about it than you and I. They can tell how many seed trees should be left to the acre or the section; they know how fast different varieties of trees grow; they know the soil best suited; they know how much taxes are; they know how much fire protection will cost; they know in how many years you can get a crop—and they know more about getting that crop off than anyone in the world.

It has been their bread and butter, this knowledge; their hot-cakes and syrup; their payment on the flivver.

When the proper plan comes along for timber growing, when airy ideas give place to grim acknowledgement of facts, there will be no more earnest proponents of the work than the lumbermen.

They're all right, all reports to the contrary notwithstanding.

A fine old Southern lumberman used to enter his favorite

club daily, and waving his hand at all assembled he would give this salute:

"Gentlemen—thieves, liars, grand-rascals"—then after a pause, "if there be any here."

This series of articles does not attempt to state that there are not some of all these varieties of men in the lumber industry—we being all sons of Adam, the old fellow who stole the apple and then blamed it on his wife.

But if you and I want information on any particular subject we go to a man who has specialized in that subject, so, by the same line of reasoning if it's timber we want information on, where under the blue canopy that covers us should we go except to men who have made this their life business?

One of our great foresters said in a recent magazine article that our situation is "not because we have used our forests freely but because we have failed to use our cut-over land."

However, if we have neglected this work in the past, today we are "sitting pretty" to start using it for the future.

We have about ten years before we begin to feel the cost of a timber famine, ten years to work. It is not a great deal of time—but a clock tick in the journey of a world, but if we use that ten years properly we can laugh at the boys on the West Coast who have it in their minds today that they will then be selling us our lumber.

The saws are at their last frontier, but it can be a permanent one.

Only don't try to shove the job entirely on the lumberman. He *KNOWS* and he's hard to impress unless you know more.

You remember about Paul Bunion, the big logger. A bad guy decided one day that he had been hearing too much about him and that he'd go over and whip him a lot and lessen his reputation. He met Paul in the road, near Paul's camp, driving his big blue ox, Babe.

Anxious to pick a quarrel the bad guy orders Paul to get the ox out of the road.

"All right," says Paul, always peaceful, and starts turning out.

The bad guy tells him to hurry up and starts to kick Babe.

"Hold on," says Paul, "don't do that, I'll get him out," and he picks the ox up with one arm and sets him off the road.

The fight didn't come off.

It's easy to misjudge people before you get acquainted with them.

(To be continued)

New Coal Organization Capitalized at \$7,500,000— To Expend \$1,500,000 on Plants Next Year.

Tralee, W. Va.—Following the consolidation of a number of coal properties in West Virginia into one organization to be known as the Sullivan-Pocahontas Coal Co., reference to which was made in the MANUFACTURERS RECORD of December 13, stockholders of the new company have elected the following officers: J. C. Sullivan, Tralee, president and treasurer; Dr. J. A. Wood, Pratt, W. Va., vice-president, and J. B. Frank, Tralee, secretary. In addition to the officers, directors of the company will include Dr. J. H. Craft, Springton, W. Va.; James Gorman and R. J. Hancock, both of Lynchburg, Va., and H. W. McNeil of Tralee.

The company is capitalized at \$7,500,000 and is expected to expend \$1,500,000 upon its various plants during the coming year. Four of these are located on the Virginian Railway, and three are served jointly by the Virginian and the Chesapeake & Ohio railways.

Among the companies brought into the new consolidation are the Harty Coal Co., Barkers Creek Coal Co., Tommy Creek Coal Co., Wood-Sullivan Coal Co., Pickshin Coal Co., Mead-Pocahontas Coal Co. and the Raleigh Fire Creek Coal Co.

The Progress of Tick Eradication in the Cattle Industry of the South.

AN INTERESTING AND COMPREHENSIVE PRESENTATION OF AN IMPORTANT SUBJECT.

By CLEMENT S. UCKER, Director of Development, Seaboard Air Line Railway.

Recently the editor of the MANUFACTURERS RECORD asked the writer whether he considered that meat or milk derived from tick-infested cattle is dangerous for human consumption.

I have had some ten years very close contact with the so-called "tick-eradication" problem in the Southern states, particularly in that portion known as the South Atlantic and Gulf Coastal Plain area. During all that time I had never heard it asserted that such meat or milk was dangerous for human consumption, but a practically unanimous opinion existed among those who knew the facts, that such meat and milk were wholly "unfit for human consumption." I mean "unfit" in the sense of being unwholesome, lacking nourishment. After the receipt of your inquiry, I propounded a direct request for authentic information to Dr. John R. Mohler, Chief, Bureau of Animal Industry, U. S. Department of Agriculture, Washington. I quote from his letter in response:

"Referring to your letter regarding an article on the Texas fever cattle tick which you have been requested to prepare for the Manufacturers Record of Baltimore, and to the question raised by the editor of that publication, as to the deleterious effect or effects resulting from the consumption of meat or milk from tick-infested cattle, I beg to advise that splenetic, Southern or Texas fever in cattle is not transmissible to man and that there is no evidence that would indicate that meat or milk derived from tick-infested cattle is dangerous for human consumption, provided, of course, that the animal from which these products were obtained was not at the time affected with fever. However, it is generally conceded that meat and milk from ticky cattle are low in quality as well as quantity, this being particularly noticeable when gross tick infestation exists."

I think it particularly unfortunate that the people of the South have not understood the far-reaching economic effects of the tick-eradication problem. I seriously doubt whether there is any single problem in the South concerning which there is, and has been so much willful misinformation.

I note that they are now dynamiting dipping vats in Mississippi.

Stated in narrative form; according to my best recollection, based on ten years' contact, the following is about what has happened:

Away back in Colonial times, it was the custom to gather together small herds of beef cattle in the Carolinas and Virginia, and drive them north to New York and Philadelphia for slaughter. Refrigeration was unknown in those days. Meat moved to the consuming centers on foot.

These beef herds were in the habit of crossing the Potomac River north of Georgetown, D. C. They then moved northeastward through Montgomery, Howard, Baltimore and Harford Counties, Maryland. They moved about ten miles a day. At night time, it was customary to ask a Maryland farmer if the herd might "turn in" on his premises. About fourteen days afterward a fever broke out among the native cattle. No one knew why. The native cattle died.

The conviction finally became firmly settled that "Southern cattle" had something that set up a contagion that reacted disastrously upon the native cattle. Suffice to say that the colony of Maryland quarantined entirely against Southern cattle. That simple fact may have changed the whole economic history of the South.

Next, we hear of similar outbreaks in Kentucky, and then

in Missouri, and finally, in Kansas. Then came the cattle-men's wars in Colorado, Western Kansas and Nebraska. The truth about the matter was that migration, as it passed Westward, was simply carrying along the problem of the Maryland farmer. So finally the United States stepped in and established a quarantine line, which, roughly speaking, ran from Norfolk, Va., to San Francisco, California. It passed from Norfolk to Charlottesville, Va., then it passed over the mountains, dropping southward, because of the altitude, took in the southern tier of counties in Kentucky, the southern part of Missouri, the southern tier in Kansas; then as the altitude began to rise to cross the Rockies, dropped southward again.

Then began the efforts upon the part of the United States to ascertain the trouble. I believe it was Doctors Smith and Kilbourne who were detailed by the Bureau of Animal Industry, Department of Agriculture, Washington. They found in the Panhandle of Texas that wherever cattle died of this so-called splenetic fever, which had popularly come to be called "Texas fever," the bodies were grossly infested with a small parasite called a "tick."

They were somewhat suspicious of this tick. Dr. Kilbourne took it into uninfested territory, tried it on perfectly healthy animals, and got sure and fatal results. Then, there could no longer be any question or a doubt as to the origin. A study of this parasite indicated that it belonged to the tick family; that its native habitat was around the Mediterranean. In other words, it is not a native of the United States. We have an analogous case in the English sparrow.

The question arose as to how this tick got into the United States. Undoubtedly, it came on the backs of the Spanish bulls, imported into Florida and Mexico for bull fights. They brought the tick with them, acclimated it, and carried it as far north as the frost line permitted it to live.

Incidentally it has always been my personal belief that this same tick caused the bloody murrain among the cattle of Egypt mentioned as one of the ten plagues.

Next arose the question as to just how this parasite affected the animal. Laboratory investigations disclosed the fact that the tick carried in his intestines a microscopic organism, which, when feeding upon the blood of the animal, was injected into the life stream of the animal fed upon. In the blood of an ox it multiplied very rapidly. These microscopic organisms in the blood of the bovine animal attacked and destroyed the red blood disks. About 50 to 90 per cent of those susceptible and attacked died. After a while, of course, a state of partial immunity is set up. The animals that survive are always poor, listless, scrawny, dejected, and more or less subject to fever.

It is impossible to bring new blood into the territory because the newcomer is invariably attacked, and the mortality in such cases is practically 100 per cent. Consequently, no new blood for breeding purposes may be introduced. It has been calculated that every calf born in tick-infested territory, and that grows to maturity, has contributed 200 to 300 pounds of blood to support this useless parasite.

It should be borne in mind that the tick in itself is not harmless. The very fact that the tick punctures the skin of the animal and enters the blood stream to suck blood and nourishment is a heavy drain on the animal. It diminishes

the blood supply, causing a decrease in flesh and milk and spoils the hide. The real disease damage comes in in the fact that, as described before, this parasite, during that process, injects into the blood a micro-organism from its own intestines. It is that micro-organism that does the damage. No other parasite carries this micro-organism. No other kinds of ticks carry it; and this particular kind of tick will not mature upon the blood of any other than a bovine animal and occasionally horses and mules.

There are plenty of cattlemen in the backwoods of the South who stoutly maintain that there are ticks on dogs, ticks on rabbits and other wild animals and for that reason the Texas fever cattle tick can't be eradicated.

There are many kinds of mosquitoes. Only one species produces the yellow fever. Only one species produces malaria. So it is with the tick, all "cross-roads" and "back-woods" wisdom to the contrary notwithstanding.

Returning to the main current of thought, the question then arose as to how to get rid of the cattle tick. A study of his life cycle indicates that the female, when she has reached maturity, is about the size and color of the nail of the small human finger. She is capable of producing anywhere from 3000 to 5000 eggs. She drops off the animal, selects a suitable place on the under side of a blade of grass, or leaf, lays her eggs, and when this process is finished her life cycle is ended; she is dead. Depending upon heat and moisture, these eggs will hatch in from 13 days to 6 weeks. When hatched, the young are about 1-32 inch in size. They move but a short distance from the place hatched, bunching in large numbers on grass, weeds, etc., to await an opportunity for attachment to a passing cow. If no bovine appears in the interval, they will live for as long as five and a half months under favorable conditions of air and moisture; but do not increase in size. At the end of that time they will die from starvation. If, on the contrary, a bovine animal moves along grazing, they quickly transfer themselves, and after selecting a spot, puncture the skin, gain access to the life stream, and in the period of possibly twenty days, all conditions being favorable, they have reached their maturity. The females are again ready to drop off and lay their eggs.

The tick is what we call a "gill breather." He breathes through an orifice, or "gill," just as the louse family does. We often notice chickens and birds dusting themselves. What they are really doing is getting rid of the vermin by covering the breathing orifices of the vermin with dust, thus clogging them and suffocation ensues.

It should be borne in mind that the Federal quarantine line ran through what were called the "Border States," where there was a fairly well-developed farm life carried on on farms that were fenced, so the first efforts at tick-eradication were made beginning at the quarantine line, and running southward. It was easy to take a census of all the cattle on the individual farms. It was easy to place all these cattle in one field and keep them there for five and a half months. During that period the ticks starved on every other field on the farm. At the end of that time these cattle were "caught up" and given a swabbing of crude oil. This had the effect of closing the breathing orifice of the tick and suffocating it. In other words, all the ticks that were on the backs of the animals were smothered, suffocated. The cattle were then placed on a "clean" pasture, and the old pasture allowed to stand idle for five and a half months to six months, during which time the ticks there starved.

This process cleared out the tick very rapidly until its onward progress struck what is known as the Coastal Plain. When operations came into the Coastal Plain, we reached the area of large ownerships of timbered or cut-over lands, particularly the low lands of the Carolinas, southern Georgia,

Florida, southern Alabama, Mississippi and Louisiana. It was there that the cattleman was engaged in raising tick-infested, inbred, undersized, half-fed cattle on the other fellows' land. The fellow who owned the land did not care. He was engaged either in the saw-mill business, or the colonization business. So long as the cattlemen did not interfere with him he did not care, he was satisfied. As to the cattleman who raised cattle, such as they were, on the other fellow's land, he was satisfied. He had no expense, and he made a profit, such as it was, often considerable. The only people who really did suffer were the consumers of meat and the consumers of milk; particularly the children.

It was obvious that no great diversified agriculture was possible in the South until we got rid of the Texas fever cattle tick. It was idle to talk about a diversified agriculture until that course was brought about. The power was in the respective states. The appropriations were made by the Federal Government. In other words, the Federal Government had the money, the men and the knowledge, if the states were willing to cooperate, but unfortunately, in most of the states there was another parasite, almost as bad as the cattle tick, commonly known as "poli-tics." It merely meant a long period of patient propaganda.

For ten years that is what we went through in the South. Florida, the last of the Southern states, just put on her statute books a compulsory tick-eradication act. The writer stood in the Legislature of Georgia when the tick-eradication act was passed by both the Senate and the House in 1916. There were twelve adverse votes in the House; none in the Senate. It is expected that before this article appears in print the entire state of Georgia will be lifted from the Federal quarantine. In other words, she will have free exchange of livestock with the world. Already, here, there and elsewhere throughout Georgia, we see the beginning of the creamery. The day of the dairy cow is coming, that means diversification in agriculture. That means the real answer to the boll weevil.

But to return again. It was obvious that the methods of eradication used in the "upper reaches" of the quarantine territory, that is, "swabbing" the animal with crude oil, could not be used in the lowlands, for the simple reason that you could not catch the animal. It was necessary to devise a new method. The new method was the dipping vat, with the solution of arsenic. Once every fourteen days all the cattle within a given area were rounded up and driven through this vat. The ticks on them, of course, were promptly poisoned. It is true the cattle undoubtedly went out on the open range and got some more ticks, but before these ticks could complete their life cycle, that is, within 21 days, they went through the vat again. At the end of the season all the ticks on the backs of the animals were poisoned in going through the vats, and all the ticks that failed to get on the backs of the animals had died of starvation; therefore, the territory was free.

Two great causes have operated against rapidity of tick eradication in the lowlands of the Coastal States. The first is willful ignorance. It is astounding, some of the beliefs that are held in the back-woods. I have had people to tell me, in all seriousness, that the cattle tick originated in the blood of the animal and burst through the skin. I have had others tell me that it was a dispensation of Divine Providence, and that it was wrong to interfere with it.

I knew of a case in Craven County, North Carolina, where a man brought the Bible to the dipping vat and pointed out a passage which said: "He that diggeth a pit for his neighbor's ox shall be damned."

The second great obstacle has been "self-interest." The

fellow who in politics played on the ignorance of his fellow men. Or, the man who made money raising cattle on the other fellow's land while the other fellow paid the taxes. In the last analysis, the general public suffered.

The South should have been the natural home of a great livestock industry. It would have been but for this parasite. It would have practiced a great diversification, and cotton would have truly been a superfluous money crop. The South would have "lived at home;" would have conserved the fertility of its soil, and would have been able to feed its children wholesome, fresh meat and nourishing milk.

Step by step the battle has been fought. Those of us who have been through it know with what cost and with what infinite patience.

The Bureau of Animal Industry, Washington, in its latest tick-eradication map shows that the entire State of Virginia, except three counties, embracing in parts the Dismal Swamp, has been released. North Carolina is clean, except a few counties along the Atlantic Coast. South Carolina is entirely released. Georgia will probably be free by the time this article is published. Alabama and Mississippi still have a few counties. Texas, Oklahoma, Arkansas and Louisiana are making commendable progress. Only Florida, with the exception of four counties, remains solidly tick infested, but as I said above, her Legislature, at its last session, provided the necessary machinery. Florida might have made greater progress, but for an incident that happened under the administration of the last governor of Florida, and which I do not think it advisable here to relate.

I assure you that whatever your great publication may do to accelerate and speed up tick-eradication work in Florida will be that much added to the day when Florida will become the Great Empire State that she is destined to become.

BRIGHT PROSPECTS FOR 1924 AT ALBANY, GEORGIA.

Will Erect \$300,000 Hotel—Plan \$200,000 School Building for City and County—Other Improvements Contemplated.

Albany, Ga., December 22—[Special.]—Despite another lean year in the yield of cotton, with 1923 perhaps the worst in the experience of Southwest Georgia, this city approaches the coming twelve months with bright prospects and with assurance of industrial and commercial prosperity.

The Albany Chamber of Commerce with a membership of 689, has made its paramount object the securing of a badly needed hotel for the city. Without a cent of promotion expenses necessary capital has been subscribed and finances arranged for a \$300,000 hostelry, plans for which are being drawn of N. W. Overstreet, of Jackson, Miss. A lease has been given Alvis & Heidleberg of Jackson for a long term and it is expected that building bids will be asked for as soon as working plans and specifications can be completed. The building will be seven stories and will contain 110 rooms with an extension arranged for 40 rooms additional. Buff and Georgia stone will be used for construction.

The lessees of the new hotel conduct hotels at Jackson and Starkville, Miss., Baton Rouge, La., and Huntsville, Ala.

An election will be held January 21 to vote upon the issuance by the city and county each of \$100,000 of bonds with which to erect a high school, the \$200,000 building to be used jointly by Albany and Dougherty county. The city council also set January 21 as the date for voting on an issue of \$100,000 sewer bonds. Bids for paving seven blocks on Jefferson street to complete the gap in the Dixie Highway, have been advertised, contract to be awarded at the

same time the county lets contract for paving three miles of road from Lee County line to the city limits.

The \$100,000 mercantile establishment of Rosenberg Bros., which is only half finished will be pushed to completion by early spring and Mrs. B. B. Williams has announced that



\$300,000 HOTEL AT ALBANY, GA.

plans are being drawn for a \$100,000 office building on the corner directly opposite Rosenberg's and across the street from the site of the new hotel.

Two other major projects are on the program for 1924. One of these is the draining of a large area in western Dougherty County. The other is an issue of \$500,000 paving bonds. The latter requires a slight amendment to the city charter which cannot be obtained until the regular meeting of the state legislature in June next.

It is recalled that Albany is famous as a pecan center. This is particularly true with respect to the paper shell pecan industry, there being 700,000 bearing trees in the section surrounding the town and thousands of acres of groves coming into commercial bearing each year. Two co-operative pecan associations have their headquarters here, as has the Georgia Peanut Growers Co-operative Association, the latter having 6000 members.

With the boll weevil menacing the successful yield of cotton, farmers hereabouts are turning to the cow, hog and hen program, and while considerable cotton will be planted the coming year, it will be only along lines of the best experience in fighting the pest. Dairying and dairy products will be relied upon for the ready money crop.

Tampa to Vote February 12 on \$2,945,000 Improvement Bonds—Three Bridges to Cost \$900,000.

Tampa, Fla.—An ordinance has been passed by the Tampa City Commission calling a special election February 12 on \$2,945,000 of improvement bonds. Included in this total will be \$325,000 each for the Cass Street and Platt Street bridges, and \$250,000 for the Fortune St. bridge, the last named proposition to be voted on separately.

Other developments provided for in the bond issue will include sewers, seawall and boulevard, construction of incinerator, improvement of schooner dockage facilities, purchase and improvement of parks and playgrounds, erection of market, fire stations, and auditorium.

Bids will be received by the Calcasieu Parish Police Jury, Lake Charles, La., until January 18 to construct a navigation channel from Lake Charles to the Sabine River. Fred Shutts is the parish engineer.

INDUSTRIAL WORKERS INSURED ON NEW GROUP PLAN.

San Francisco Inaugurates a Unique and Wise Scheme for Workmen.

Some fifteen to twenty thousand American Plan workmen employed in the various industries of San Francisco are expected to become the beneficiaries of a group insurance plan worked out by the Industrial Association of San Francisco and one of the large insurance companies there, according to a recent announcement of the association.

Without the necessity of a physical examination, and at a cost of no more than approximately ten cents per week, an employe will secure a one thousand dollar insurance policy covering death or total disability; and for an additional seventeen cents a week, may also procure coverage for health and accident. The balance of the cost of such insurance, which is being issued at a 5 per cent lower rate than group insurance has ever before been supplied, is paid by the employer. Under the conditions of the plan, an employee may transfer from one American Plan employer to another in his particular trade without forfeiting his insurance. This is said to be a new feature of group insurance, and to be more favorable to the employee than any that has been written heretofore.

The whole plan is made possible by virtue of the California law which permits the insurance company to consider the trade association of the employers in any craft as a common employer for the whole trade group; that is, for all the employees working for all the employer-members of that particular trade association. It is pointed out that the great problem of insurance for workmen, particularly in the building trades, arises from intermittent employment. A man may be working for Jones today; and, finishing Jones' job, find it necessary to work for Brown tomorrow. Under previous plans his going from Jones to Brown would automatically terminate any insurance for which he and Jones were jointly paying. Under the new plan as worked out by the Industrial Association, however, the secretary of the trade association of which Jones and Brown, as employers, are members, simply transfers the man's insurance from one employer to the other, and the man is fully covered without making a new application and without any expense. He may even be granted a leave of absence for six months on account of sickness or because of working for a non-member employer, without losing his insurance and without extra cost.

The benefits of the plan accrue both to the employer-members of the various trade associations and to the individual employers. It will make for solidarity of the trade associations, probably practically eliminating the practice of employers "hiring men away" from each other; and materially reduce the employer's labor turnover. As for the employees, it affords them the opportunity to get more and much cheaper insurance than they could secure through any other known scheme; the cost is 50 per cent less than regular insurance rates on individual policies—and it will enable many to obtain insurance who, due to advanced age or slight physical disability, could otherwise not secure it.

The Industrial Association is taking the lead in presenting the plan to the various trade associations of the San Francisco Bay district, and has agreed to act as a court of appeal in any disputes that cannot be settled by the insurance company and the parties immediately concerned. The new plan has been enthusiastically received, and it is expected it will be accepted by virtually all employers and employees operating under American Plan conditions; thus embracing 80 to 90 per cent of the manual workers of San Francisco.

(From Columbia, S. C., State) "No Honest Man Can Favor System."

Ten days ago, assuming the South's 1923 cotton crop to be 9,500,000 bales, the raw cotton was worth one hundred and ninety million dollars more than it is today. The drop in price has been \$20 a bale in so brief a time.

But while that huge amount represents the loss to the holders of the cotton, has the crop actually decreased a dollar in intrinsic value? Two weeks ago it was reported from New York and New Orleans that British spinners had their agents in the South buying cotton wherever it could be found. Those spinners and the American spinners then buying paid \$20 a bale more for cotton than today's quotations; and that cotton is still worth to them what they paid for it; they would not sell for the price paid. But on mere rumor unsupported by even a government estimate, the prices start downward, and gamblers rush to sell cotton they have not got; and selling for future delivery, they have the option in their contracts of delivering any one of ten grades. That form of contract alone operates to lower the price.

In the latter part of November The State commented favorably upon Senator Dial's bill before congress for the regulation of future contracts, in which reference was made to the MANUFACTURERS RECORD of Baltimore. The following letter from Richard H. Edmonds, editor of the RECORD, will be gratifying to those desiring influence on the side of reform and honesty in cotton contracts for future dealing:

To the Editor of The State:

In your issue of November 28th referring to some statements made in the MANUFACTURERS RECORD you say, "Will not the great trade journal of Baltimore, which has for so long championed Southern industries, study the bill proposed by Senator Dial of South Carolina for changing the basis of contracts in 'future' trading and pass judgment on the senator's article in support of that measure?"

Last spring, at my request, Senator Dial prepared for us an elaborate presentation of his views on the reason for his bill and it afforded me very great pleasure to give as conspicuous attention to his article as I could possibly do.

I have believed for many years that much of the trading in future cotton contracts in New York and New Orleans is gambling, pure and simple, with loaded dice as against the producers and have said so many times. While some improvement has possibly been made in the matter of the basis for contracts, I am unable to see how any honest man can favor the system which has prevailed in the past, a system which enables the seller to avoid delivering the thing that he sells and often compels the buyer to take a thing which he did not purchase.

RICHARD H. EDMONDS.

Baltimore, December 7.

When the paper value of the South's crop drops \$190,000,000 in ten days, and the price to the producer falls \$20 a bale, not because of supply and demand, but on account of panic of gamblers, who may depress the price by selling something which they have not got to deliver, it is high time for Southerners in congress to give serious consideration to Senator Dial's measure which is directed toward stabilizing the price of cotton. Congress can and should put an end to a system which Mr. Edmonds declares "no honest man can favor."

May Build \$2,000,000 Hotel at Cumberland.

Cumberland, Md.—William H. Cook of Johnstown, Pa., who is said to represent interests in that city, has secured an option expiring April 1, on the Fairview Hotel and grounds here, the site to be used for the erection of a \$2,000,000 hotel, it is said. The structure will be 7 stories high and will contain 300 rooms.

A large amount of stock in the new hotel is reported to have been pledged already and no subscriptions will be solicited locally, the enterprise to be sponsored almost exclusively by Johnstown capitalists.

Big Road Building Program and Other Important Activities in an Arkansas County.

MORE THAN \$6,000,000 OF BONDS SOLD FOR IMPROVED HIGHWAYS.

[Special Correspondence Manufacturers Record.]

Blytheville, Ark., December 18.

Mississippi County, of which Blytheville is the county seat, is rapidly coming to the front of Southern counties in its road building program, having sold more than \$6,000,000 for improved highways.

The Blytheville-Manila-Leachville road district will complete its project by the end of this month. The county will then have a hard surfaced road running from the west line to Blytheville. Twenty-eight miles of it is reinforced concrete, 16 feet wide, this part of the road having been finished. Twenty-two miles of the project is gravel, 16 feet wide. The main line is reinforced concrete, and all laterals are gravel.

The district comprises 85,000 acres, and the city of Blytheville, and towns of Manila, Dell, and Leechville. The road is being built by the Good Roads Construction Company, of St. Louis, and three concrete mixing machines are at work day and night. The cost will approximate \$2,000,000, and Federal Aid to the extent of about \$300,000 will be received.

Mississippi County Road Improvement District No. 1, extending north and south through the county is another Federal Aid project under construction. Twelve miles of reinforced concrete, 20 feet wide, with a Warrenite surface is being completed.

Commissioners on this project have let a contract to E. E. Park of Okmulgee, Okla., for its completion. The contract including \$734,000, covers labor only, the district to furnish all material. H. H. Hall Construction Co., of East St. Louis, Ill., will do the grading and concrete work and the Park company will do the surfacing. The contract includes 37.75 miles and will complete the entire road from the north line to the south line of the county. Five mixing machines will be placed on the job, three on the Blytheville end, and two on the Wilson end. Industrial tracks will be laid and materials assembled at once in order that work may start next spring.

This district includes approximately 187,000 acres, the city of Blytheville and towns of Yarbro, Burdette, Luxora, Osceola, Driver, Gridar, Wilson, Bassett, Joiner and Frenchman Bayou. The road will connect with the highway at the Missouri state line on the north and the highway at the Crittenden County line on the south, forming a link in the Mississippi River Scenic Highway.

The project will have cost when completed about \$3,000,000, and it is expected that Federal Aid to the amount of approximately one-third the cost will be secured.

When these two roads are completed Mississippi County will have 78 miles of concrete and 22 miles of gravel roads.

In addition to highway building in this county, other work of much importance is being undertaken. Commissioners on paving districts Nos. 2 and 3 of the City of Blytheville recently let a contract to J. H. Rouse Construction Co., of Cape Girardeau, Mo., for building 9½ miles of concrete streets. The contract was for \$425,000 and includes in addition to the streets of eighteen to fifty foot width, storm sewers, curbing and guttering for all the new streets, and 185 catch basins for storm water. Bonds for the new projects are twenty-year 5½ per cent, and were bought by the Lesser-Goldman Cotton Co. of St. Louis.

Commissioners on the Osceola-Little River road district are making arrangements to start surfacing in the near future.

This project runs from Osceola to Little River on the west, a distance of some 30 miles, and in addition to the main road will have some 20 or 25 miles of lateral roads.

In addition to the road and street paving, other construction in Blytheville runs into big figures for the past year. The ArkMo Compress Co. has built a new compress of 20,000-bale capacity, costing \$350,000; Blytheville Cotton Oil Mill, with a capacity of 25,000 tons, has been built and placed in operation, at a cost of \$300,000; First National Bank has built a new \$100,000 home; three gins have been built at a total cost of \$150,000; the Blytheville Compress & Warehouse Co. has doubled its capacity, building new sheds and installing another press, at a cost of \$250,000, and the Consumers Ice & Coal Co. built a new \$50,000 ice plant. Business houses and residences built during the year will cost around \$200,000. In addition to road and street work, construction will total close to \$1,250,000 in Blytheville alone.

The county as a whole has done an enormous amount of construction in 1923. A total of eight new cotton gins were built in addition to several warehouses. Every town in the county has had building going on at some time in the year. One land company has erected more than fifty farm houses on lands it owns, and hundreds of other houses have been put up. Extensions, improvements and new building have exceeded by far any previous year and prospects for the coming year are for a continuation of this program.

Western North Carolina, Inc., Completes Organization.

Asheville, N. C.—Formal organization of headquarters for Western North Carolina, Inc., new community development corporation for this section of the state, has been completed here with the selection of Maj. Warren E. Hall, an experienced engineer, who will serve as secretary-treasurer, and have charge of the general office pending the removal to Asheville of Col. Joseph H. Pratt, president, to take charge as permanent managing director.

Major Hall is district engineer for North Carolina of the United States Geological Survey, coming to Asheville about three years ago. For the present, Colonel Pratt, Major Hall and Miss Sarah Brooks, clerk and stenographer, will compose headquarters organization of the company.

\$500,000 Dwelling Construction Program at Richmond.

Richmond, Va.—Plans for the erection here of dwellings costing \$500,000 during the coming spring have been made by Max E. Ruehrmund, who will build two rows of homes in the 2000 block of Rosewood street to house 80 families. These will be six-room structures and will be covered with slate roofs.

Ten bungalows will also be erected on Taylor street west of the Boulevard, and four apartments on Belmont to contain 12 suites each.

The State of Oklahoma plans to vote early in 1924 on a proposition to issue \$75,000,000 of bonds for the purpose of completing the hard surfaced road program of the state.

\$1,000,000 BANK BUILDING AT MIAMI.

Construction Soon to Begin on 12-Story Structure for Bank of Bay Biscayne.

Construction will soon be actively under way on the new building to be erected at Miami, Fla., by the Bank of Bay Biscayne. The building will be 12 stories high, 145 by 129 feet, and will cost about \$1,000,000. It will be located at Flagler street and Miami avenue.

Above the second story of the building there will be a central court 46 feet wide extending from the north line southward a distance of 80 feet.

The two street facades will be treated with a granite base superimposed by Bedford stone extending to the still-course of the fourth story. All succeeding stories will be faced with terra cotta, while the cornice will be of similar construction with relief ornamentation treated in polychrome.

The Western Union Telegraph Co. will remain a tenant of the bank and will be accommodated with suitable offices in the west wing of the new building. The remaining portion of the two lower floors, measuring 92 by 129 feet, will be devoted entirely to the business of the bank, the north 30 feet of this area to be occupied by the Biscayne Trust Co., a subsidiary. The main entrance to the banking room will be in the center of the Flagler street facade. A public lobby, 40 by 64 feet, will occupy the central portion. An arcade will surround the lobby supported by marble columns extending through the height of two stories and upholding an elaborate dome. There will practically be no second floor in the banking room except the mezzanine and balcony extending around the south, east and north sides of the room.

The vault covers an area of 17 by 54 feet, is two stories high with enclosing and subdivision walls, floor slabs and top covering of reinforced concrete. The deposit vault will have a circular door 15 inches thick furnished by the Diebold Safe & Lock Co. of Canton, Ohio. This door weighs 58,000 pounds and is reinforced with a number of drill-proof chrome steel plates. The door of the currency vault will be rectangular in shape, constructed similarly to that of the deposit vault and will weigh 26,000 pounds. Both are provided with anti-dynamite devices.

All banking space will be heated by hot water, and ventilated mechanically. Office rooms will be equipped for electric fans and electric heaters. The building will be served by four electric elevators, provision being made for two additional cars.

In addition to accommodations for the bank, trust company and telegraph company, the building will contain 170 office suites of three rooms each, 40 suites of two rooms each and 70 one-room offices.

Owing to necessary occupancy of certain portions of the premises during the erection of the building, construction will be divided into three sections. The first unit, or section one will be five stories high. When this has been completed a shifting of offices will permit the construction of the second unit, after which the old building will be razed and the third unit erected.

Plans and specifications have been prepared by the Weary & Alford Co., Chicago, and Pfeiffer & O'Reilly of Miami will supervise the construction.

The bank officers include James H. Gilman, president; F. W. Fuzzard, E. P. Duncan, E. B. Douglas, and S. A. Belcher, vice-presidents; T. E. James, cashier; M. W. Hallam, J. E. Lind and R. K. Mixson, assistant cashiers.

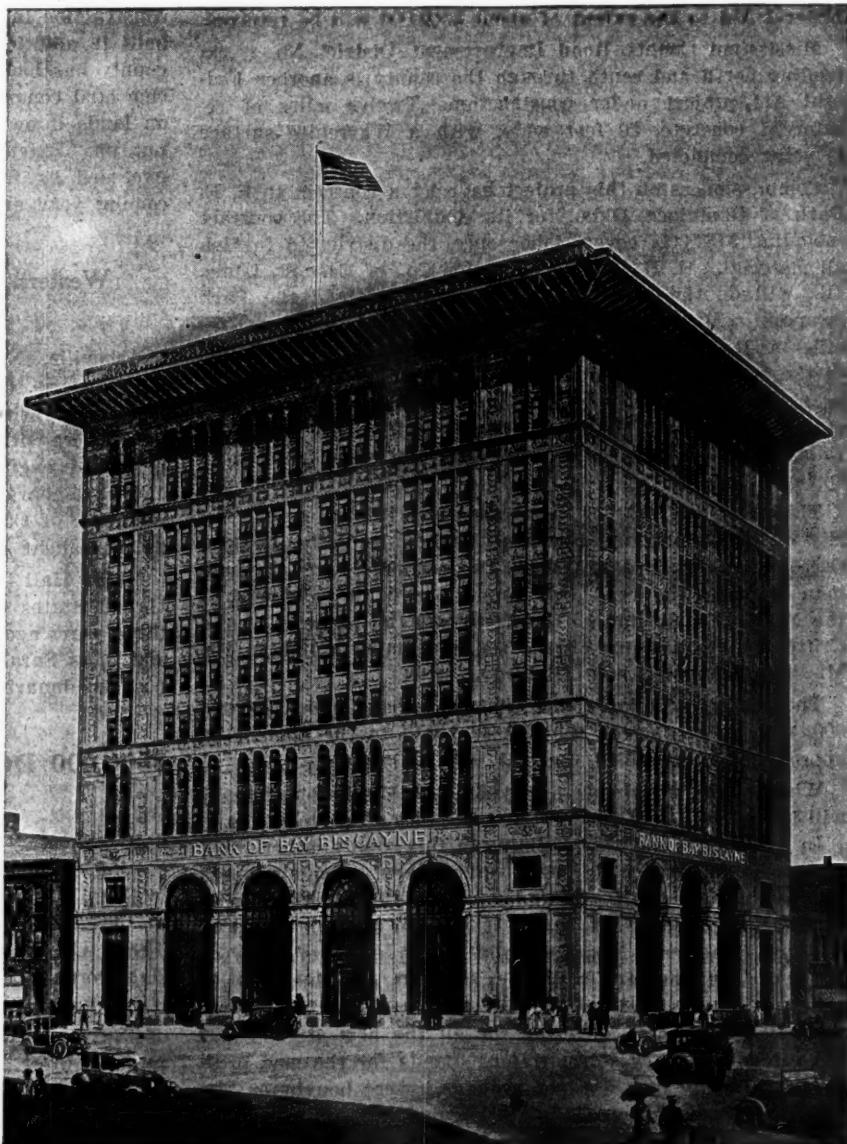
In the Interest of Pure Seed for Georgia Farmers.

Atlanta, Ga., December 21—[Special]—The Georgia Breeders' Association founded several years ago for the purpose of supplying the farmers of the state with pure seed of the various crops grown, is doing excellent work as shown in the report of the secretary, Prof. R. R. Childs, of the Georgia State College of Agriculture.

During the past year, 53,015 bushels of cotton seed, 5370 bushels of corn, and 1374 bushels of Laredo soy beans were inspected by officers and members of the association and found to be pure and true to name.

These figures represent a large increase over those of last year, and while only a small percentage of the crops grown in the state can be planted from this supply, it shows that interest along the line of pure seed is steadily increasing, and that in a few years, pure-bred seed will be the rule rather than the exception on Georgia farms.

College No. 1, Cleveland, Over-the-Top, and Wilt Resistant Toole were the principle varieties of cotton grown and offered for sale by members of the Association.



\$1,000,000 BUILDING AT MIAMI FOR BANK OF BAY BISCAYNE.

The Deep River Coal Field of North Carolina.

By JOSEPH HYDE PRATT, Director North Carolina Geological and Economic Survey.

Coal deposits have been known in North Carolina for about 150 years and for many years there has been more or less interest aroused as to the possibility of developing commercial fields of this mineral. Considerable prospecting and some mining has been done during this period, but most of the work was a failure due to several causes, chief of which perhaps was lack of capital and having men unfamiliar with coal mining in charge of operations. As a result the public began to consider that either the coal was so poor or the mining conditions so bad that it was very doubtful if coal mining could ever be made to pay. This was probably a natural sequence considering what was known of some of the coal which was in very thin seams and obviously could not be worked profitably. Also considerable coal that was first used was weathered and did not have the heating properties expected of it.

Believing that the coal of the Deep River field was much more valuable than had been generally considered and that it should become a source of fuel, not only for mills and railroads of Eastern North Carolina, but for domestic use in the form of coke, a geological investigation was made of this field during 1921 and 1922, by the North Carolina Geological and Economic Survey and the United States Geological Survey.

There are two areas in the state in which coal occurs: One known as the Deep River coal field covering portions of Chatham, Lee and Moore Counties, and the other the Dan River coal field covering portions of Stokes and Rockingham Counties. The coal beds of both these fields occur in sandstones and shales of the Triassic age, which outcrop in comparatively narrow belts.

The Dan River field has been described in detail by R. W. Stone, of the U. S. Geological Survey, in Economic Paper 34, 1914, pages 115-149, of the State Survey's publications, the decision being that "after a thorough and careful examination of the Triassic beds in the Dan River field the conclusion is reached that there is no reason to expect to find commercially valuable coal beds in this district." Since this report there has been no further prospecting or consideration given to this field from a commercial standpoint.

The Deep River coal field has been prospected and investigated from time to time over a period of nearly one hundred years, but only one of these early investigations was more than a superficial examination. This was the report of Dr. H. M. Chance, made in 1884-85 for the North Carolina Department of Agriculture. Dr. Chance's conclusions, which were not particularly favorable, were that in the area described "the prospects are sufficiently encouraging to warrant a thorough exploration of each individual tract by the landowners; that in the area between Farmville and Gulf two beds of coal exist that may be considered workable."

It seems evident that the coal was discovered at Gulf some time prior to 1775, and from that time to the present there has been considerable uncertainty as to the quantity and quality of the coal in the area.

The geography of the field shows it to extend from a short distance northeast of Cape Fear River in a southwesterly direction to Carthage and in the other direction from Sanford on the southwest to a few miles beyond Gulf on the northwest. It is designated as the Deep River field because almost all the prospecting and developing has been on or near that stream from near Glendon to the point where Deep and Haw Rivers unite to form the Cape Fear. The area in which the presence of coal has been demonstrated is only a small part of the area outlined above.

It lies near the center of the state, being about 45 miles southwest of Raleigh, 60 miles southeast of Greensboro, 125 miles east of Charlotte and 35 miles northeast of Fayetteville. Sanford, the principal town in the district is situated on the main artery of automobile travel from Washington and Richmond to the winter resorts of the South and it has good automobile highways leading to the more important cities and towns in the state.

Good railway facilities are available. The main line of the Seaboard Air Line Railway enters the field from the north near Moncure, passing south through Sanford and leaves the district one and a half miles west of Jonesboro. The Southern Railway (Atlantic and Yadkin Branch) crosses the district from the north from Greensboro to Sanford where it connects with a branch of the Atlantic Coast Line to Fayetteville and Wilmington. The Norfolk Southern Railway's line from Charlotte to Raleigh crosses the district about Cumnock and Gulf.

The coal beds are associated with sandstones and shales which are of the Triassic age and belong to the Newark group of rocks which includes the red sandstones of the Connecticut Valley in Connecticut and Massachusetts, and the red sandstone and shale of Virginia. This Newark group in the Deep River field consists of three generally recognized parts: A lower formation to which the name Pekin has been given, composed largely of red and brown sandstones, 1000 to 2000 feet thick; a middle formation of light colored or drab shale and sandstone which includes the coal beds, and to which has been given the name Cumnock, 500 to 1000 feet thick, and an upper formation called the Sanford, consisting mainly of red conglomerate, at least, 4000 feet thick.

The coal field is in the form of a shallow with a nearly flat bottom, and that part being developed is in what has been described as the Carthage trough. From Mt. Gilead in a southeasterly direction there is first observed a belt of red sandstone and shale of the Pekin formation, then a rather narrow belt of the Cumnock formation, then a belt of red sandstone and conglomerate of the Sanford formation. Continuing southeastward, the formations enumerated above are observed in the reverse order. This indicates clearly that the trough is rather complete, and dips show that it is in the form of an open syncline. The dips on the northwest side are very slight and the width of the outcrop is correspondingly great, but on the southeast side the dips are somewhat steeper and the outcrops correspondingly narrow.

After the formation of the trough the region was subjected to torsional stresses which resulted in cross-structures, the most noticeable of which is the Colon cross-anticline, which is probably responsible for the northeast spoon-shaped termination of the Carthage trough. These torsional stresses which twisted this part of the earth's crust are probably responsible for the formation of the openings which were filled with molten material forming the diabase dikes observed in the region today. These dikes vary in width from a few inches to about 100 feet. In general the dikes cut the country rock in an almost vertical direction, and in most cases where their bounding walls can be seen they are extremely regular and the thickness of the dike varies but little. Wherever the dikes have cut the coal it has been converted into anthracite. Before planning the development and mining of any of the coal, the area should be carefully studied and the dikes showing at the surface mapped, which will give some idea of what one is liable to encounter at depth in the mine.

The next geologic structure in the region was a normal faulting in a longitudinal direction, which resulted in the

development of the Jonesboro, Deep River and Carbonton faults. These faults cut the Newark rocks in a direction roughly parallel with the trend of the troughs.

The Jonesboro fault is on the eastern edge of the district; the Deep River fault is encountered nearer the center of the district east of Cumnock, and the Carbonton fault is nearer the western edge of the district. While the amount of displacement of the formations cannot be accurately determined, it has been as great as 7000 feet in the Jonesboro fault.

The coal occurs in the Cumnock formation in two branches known as the upper and the lower. Formerly in speaking of the thickness of the coal beds both benches were included in the width given as seven feet six inches, and it is believed that this entire thickness was originally mined. It is only the upper bench, however, where the coal varies in thickness from three feet to nearly four feet, that is considered at the present time as commercial coal, although it is believed that under certain conditions the coal of the lower bench might be mined and cleaned profitably. The extent of the workable coal is from the Deep River fault to Haw Branch, a distance of 11 miles, where there is one bed of coal, at least of workable thickness. East of the Deep River fault the evidence is so meager regarding the presence of workable coal that one does not seem justified at the present time in including any of that territory in a probable coal field. A core drill, however, may show the presence of commercial coal.

The amount of available coal in this workable field referred to above is estimated by the geologists as approximately 68,000,000 tons of recoverable coal, and that mining can be carried on profitably to a depth of 2000 feet. The area in which this tonnage is included is about 25 square miles, and it is considered reasonable to assume that the coal bed throughout this area averages at least three feet in thickness of recoverable coal.

As the coal beds lie in a shallow trough and as these beds as well as the associated rocks are but slightly disturbed by folds and faults, mining conditions even at a depth will be fairly good. The shallowness of the trough also means that much more of the coal is within mining distance of the surface than would be the case if the dips were steep. The black band forming the parting between the two benches of the coal bed will make an excellent floor that will not heave under pressure from the pillars, and the roof will be very good, being able when properly supported to withstand a load of many hundreds if not thousands of feet of strata.

The character and quality of the coal have been very carefully studied and the physical and chemical analyses of coal taken from various sections of the area are given in Table 1. One interesting feature of the chemical composition of the coal is that it contains approximately two per cent of nitrogen, which could be recovered in the form of ammonium sulphate as a by-product in coking the coal, which would give approximately twenty-three pounds per ton of coal. The coking test showed that the coal would make a coke of very good quality in so far as could be determined by a laboratory test and is fairly equal to either Freeport or Pittsburgh cokes.

It is believed that one use of the Deep River coal that should be given careful consideration is coking it, using the coke after briquetting it for a domestic fuel, and the yield of gas for generating electric power for transmission.

The ammonium sulphate, obtained as a by-product, will be of large value for agricultural purposes. There could also be recovered another by-product of approximately twenty-two gallons of tar (dehydrated) per ton of coal. The by-product yield in coking this coal compares very favorably with yields from Freeport coal.

In order to determine coking properties and by-products it would yield in the operation, a large sample of washed coal from the top bench in the Cumnock mine was tested at the

Pittsburgh Experiment Station of the U. S. Bureau of Mines. The analyses of the sample of washed coal and of the resultant coke were as follows:

PROXIMATE AND ULTIMATE ANALYSIS OF WASHED COAL AND COKE.

	Coal Per Cent	Coke Per Cent
Moisture	1.0	0.5
Volatile matter	33.0	3.8
Fixed carbon	59.6	87.2
Ash	6.4	8.5
Hydrogen	5.2	1.2
Carbon	78.9	86.0
Nitrogen	2.1	2.0
Oxygen	5.8	1.0
Sulphur	1.6	1.3
B. T. U.	14220	13350

The results of the laboratory coking tests on the washed coal are as follows:

Final coking temperatures	775° to 880° C.
Weight of charge	15 pounds.
Coke yield	75 per cent of charge.
Gas yield	8000 cu. ft. per ton of coal.
Ammonium sulphate	23 pounds per ton of coal.
Tar (dehydrated)	13.9 per cent of coal charged or 22 gallons per ton.

Western Maryland Utilities to Consolidate—New Organization Properties Appraised at \$22,000,000.

Frederick, Md.—Plans are being considered by directors of the Potomac Public Service Co., of Hagerstown, and the Potomac Edison Co., of Cumberland, both in Western Maryland, for the consolidation of the two companies into a new organization to be known as the Potomac Edison Co., with its main office in this city. The new company will have a capitalization of 25,000 shares of stock, of which 75,000 will be preferred with a par value of \$100 and the remainder of common stock with no par value.

Properties of the two companies are appraised at \$22,000,000 and are located in Allegany, Carroll, Frederick, Garrett, Montgomery and Washington counties, Maryland, and in the Virginias and southern Pennsylvania. It is understood that the first officers of the new company will include Emory L. Coblenz, Frederick, chairman of the board of directors; Melville F. Riley, Hagerstown, president; Charles M. Harris and Henry Holzapfel, Hagerstown, and Walter J. Findley, New York, vice presidents; Raymond E. Town, Frederick, treasurer; Byron A. Winebrenner, Frederick, and Philip L. Ross, New York, assistant treasurers; Charles C. Walters, Frederick, secretary, and Raymond E. Town, Frederick, and William K. Dunbar, New York, assistant secretaries.

Will Make Plans for Texas \$850,000 Technological College.

Sanguinett, Staats & Hedrick of Fort Worth, architects for the proposed Texas Technological College, as reported recently in the MANUFACTURERS RECORD, advise that plans for the erection of the buildings have not yet been formulated. The board of Regents, headed by its chairman, Amon G. Carter, Fort Worth, Clifford B. Jones, Spur, and John W. Carpenter, Dallas, together with P. W. Horn, the new president of the board, with a member of the firm of Sanguinett, Staats & Hedrick, a member of the firm of William Ward Watkin, of Houston, the associate architect, and a member of the firm of Robert & Co. of Atlanta, consulting engineers, will tour the East, middle West and perhaps the west coast, starting January 15 and visiting various technological, engineering and agricultural colleges.

This tour is for the purpose of accumulating ideas and data in order to determine necessary features to be incorporated in the new school. It is hoped to take bids between May 1 and June 1 and get the work started as soon after as possible.

THE APPLE WITH A HISTORY.

The Albemarle Pippin of Virginia As Seen by a Grower—Should Be Widely Advertised.

By SAMUEL B. WOODS, Charlottesville, Va.

The Albemarle Pippin, which has the reputation of being "the best apple in the world," originated in Albemarle County, Virginia, and the parent tree grew at "Castle Hill," the home of Dr. Thomas Walker. The latter was the commissary officer of the Virginia troops under George Washington in the ill-fated expedition of General Braddock against Fort Duquesne, now Pittsburgh. When Dr. Walker returned home from that disastrous campaign he brought in his saddle bags some cuttings, apple scions, which he grafted on native seedlings. From one of these came the Albemarle Pippin.

The tree is a slow grower and takes often twenty years to come into commercial bearing, but it attains a great size and a great age, some times over a hundred years, and sometimes a tree produces twenty-six barrels in a single crop. The Albemarle Pippin requires a peculiar soil and proper elevation. Hardly one per cent of the land in Albemarle County will produce them. The apple is green when first gathered but ripens into a beautiful yellow; it is juicy, crisp and brittle, with a delicate, true apple flavor and a delightful aroma. No greater compliment was ever paid the flavor of the Albemarle Pippin, and indeed other Eastern apples, than the refusal of Pacific Coast apple growers to allow flavor to be counted in the contest for premiums at the San Francisco Exposition.

In the early years of Queen Victoria's reign Andrew Stevenson, then minister to the Court of Saint James, had sent over from his farm in Albemarle County, Virginia, Albemarle Pippins for his own use and made the Queen a present of a number of barrels. She was delighted with their perfect flavor and excellence and in appreciation of them and as a compliment to Mr. Stevenson had removed from the Albemarle Pippin alone a small tax then on all imported apples for the benefit of the Crown. It is often called the "Royal Apple."

The recognized standard authority on apples is a work published by the State of New York and sold at twenty dollars a volume, less than its cost. It catalogs the Albemarle Pippin as "the best" and states "it has a long established reputation in Europe and commands the highest price paid for American apples. The crop is largely exported." After referring to the historical facts above mentioned, its conclusion is that the Albemarle Pippin originated from the Yellow Newtown. In its new environment in the mountains of Albemarle it developed a greater excellence and a higher character than its renowned parent.

This season three New York firms have bought practically all the Albemarle Pippin crop in Albemarle County, paying as high as \$8.00 a barrel for some orchards. Certain grocery stores in New York City last year sold no Albemarle Pippins for less than \$18.00 per barrel.

As a matter of interest, there were no commercial orchards of Albemarle Pippins until comparatively recent years with the exception of one or two. It is quite a coincidence that two physicians figure in the history of this fine apple; the first of these produced it and the second introduced it commercially.

When Dr. Boaz planted the first thousand trees at Covington he was criticized as visionary and the wealthy planters, his neighbors, declared that it was a pity to spoil fine tobacco land, predicted that he could find no sale for such an enormous crop as one thousand trees would produce, and that he would pull up his trees and plant tobacco there yet. Many a great idea has been lost because the multitude regarded it as visionary, but in Dr. Boaz's case the Albemarle Pippins

exported to England soon beat the best export tobacco as a revenue producer and now thousands of trees cover the farm, approving the wisdom of Dr. Boaz and making his descendants independent. Working men who began life without a dollar but who bought a few acres back in mountain hollows suitable to the growth of this apple can count on an annual income of eight or ten thousand dollars.

The Albemarle Pippin is practically unknown in many states of the union. The growers are unorganized and have not yet learned that *advertising pays* and that the newspaper and the magazine are indispensable for any broad and great success. Where it has been tried in a small way advertising has shown itself to be the handmaiden of success, for the great merit of this apple when once introduced to the public, enables it to hold its own and demonstrates that it really has no competitors; that both at home and abroad people will pay the price for it, no matter how cheap other apples are. The small amount of land suitable for the Albemarle Pippin will always limit its production. It is further limited by the long years the tree must grow before profitable bearing, for few people have the stomach for a long chase, but want returns about as quickly as they would get from planting green peas.

The reputation of the apple is being injured by many growers, who under the influence of New York buyers, gather the fruit as early as the last of August and before it matures. Because the Albemarle Pippin keeps longer in cold storage than the Greening, these buyers, who own Greening orchards and have a fancy trade in New York City for apples to roast for breakfast, are urging our growers to pull off our apples green, in order that they may make the finest dessert apple in the world play second fiddle to a cooking apple! The apple gets its beautiful color, its fine flavor and aroma, its sugar, *the last days it hangs on the tree*, and if not gathered too soon and while immature, a winter apple like the pippin keeps on making sugar long after it comes from the tree.

In olden times it was thought necessary that the Albemarle Pippin should not be gathered until after the first white frost which seldom occurs with us before October. An ordinary well ventilated cellar keeps to perfection well sprayed Albemarle Pippins that have ripened properly on the tree and gives them the beauty and fine flavor that captivated the Good Queen of Old England.

Organize \$1,000,000 Real Estate Company.

Huntington, W. Va.—A charter has been secured for the Solof-Schonthal Company here, capitalized at \$1,000,000, for the purpose of handling real estate on a large scale. The new company already has large holdings in Huntington and will continue to acquire and improve what it now has. A Solof is the head of the organization and associated with him are D. C. Schonthal and H. A. Zeller, secretary-treasurer and vice president-general-manager, respectively of the West Virginia Rail Co.

Report on North Carolina Pine.

The North Carolina Pine Association reports as follows on 43 mills for the week ending December 15:

	Total Feet
Orders	6,485,498
Shipments	8,289,881
Production	7,884,094
Normal Production	10,944,000

The orders were 21 per cent below shipments, 17 per cent below actual production and 40 per cent below normal production. Actual production was 29 per cent below normal. There was a decrease in orders over the preceding week of 1,888,242 feet or 23 per cent.

ICE CREAM AND DAIRYING PROGRESS.

The South Where the First Ice Cream Was Made. Now Developing a Great Industry.

By CRADDOCK GOINS, Milwaukee.

One of the South's most rapidly developing industries is ice-cream manufacturing. It has so far outstripped other branches of the dairy industry that has become a separate, distinct trade field in itself.

It is only in recent years that this industry has attained prominence. Its rapid growth in the past decade, however, causes many to believe that it is destined to be one of the great factors contributing to Southern prosperity.

From an humble beginning, the Southern ice cream industry in 1922 had a production value estimated at \$90,000,000. Southern ice cream manufacturers produced 16,000,000 gallons of ice cream last year. This year, 1923, is the best on record, and it is believed that statistics will show the Southern states to have produced more than 25,000,000 gallons during the 12 months.

Optimism over the future of the industry is based upon natural conditions. Although the South has long periods of warm weather, it has not remotely approached other sections of the country in consumption of the frozen beverage. With admirable conditions for the well-being of the dairy cow, Southern ice cream manufacturers believe that the growth of the dairy industry, and increased popularity of dairy products will bring about great expansion for the ice cream trade. Throughout the country in 1922, ice cream manufacturers produced 263,000,000 gallons of their product; less than one-tenth of this was made in the South.

But all over the South dairy plants have been going up the past year. A review of 1923 shows that the industry has made much progress. The dairy plants of the South, although not as large on average as those of other sections, are in every way as modern. Some of the more up-to-date, erected in the last two or three years, are those of the Union Ice Cream Co., Nashville, Tenn.; Joseph Costa Co., Athens, Ga.; Chapins Sacks-Jersey Ice Cream Co., Birmingham; Jefferson Dairy Co., Birmingham; McLaren Co., Tupelo, Miss., and the Clover Farm Dairy, Memphis.

Conditions in the industry were shown to be very promising at the recent convention of the Southern Association of Ice Cream Manufacturers at Little Rock, Ark., held December 4, 5 and 6.

Prof. A. C. Baer of Stillwater, Okla., told this convention that the South is "the natural ice cream consuming area of the United States." He said:

"We can feel justly proud of the progress which the ice cream industry has made in the past five or six years. While there has been a general progress both in the amount of ice cream manufactured as well as the quality of the product, both the quantity and the quality have been more materially improved in the Southern half of the United States."

"The question has been raised many times relative to the quality and purity of the ice cream of the South, and it appears that the northern manufacturers and consumers of ice cream feel that this product as made in the South is not of standard quality, but a much inferior article as compared with ice cream made in Chicago, Milwaukee, St. Paul and other Northern places.

"I know that our own ice cream made in the South is good and probably a better standardized article than the general run of ice cream made in the North."

The speaker said the South has too much of the single-crop system of farming. Until this is abolished, progress in the developing of dairying will be considerably impeded, he declared.

The new officers of the Southern Association of Ice Cream Manufacturers are: W. J. Barritt, Tampa Dairy Co., Tampa,

Fla., president; S. N. Sutton, Sutton Ice Cream Co., Vicksburg, Miss., vice president, and J. W. Walter Clopton, Decatur Creamery & Ice Cream Co., Decatur, Ala., secretary-treasurer.

The association made plans to meet in 1924 in connection with the convention of the National Association of Ice Cream Manufacturers at New Orleans. This will be the first time a national association in the dairy group has ever visited the South. Louisville, Ky., is bidding for the 1924 World's Dairy Congress and National Dairy Association Exposition, which drew dairymen from all parts of the world when it was held at Syracuse last fall. The campaign is being pushed through the Kentucky Dairy Products Manufacturers, of which C. C. Ball of Louisville is secretary-treasurer.

The Mississippi Ice Cream Manufacturers' Association will meet at Laurel January 8 and 9. S. N. Sutton of Vicksburg is president. The North Carolina Ice Cream Manufacturers' Association will meet at Winston-Salem January 15 and 16. C. E. Landreth, of Winston-Salem, is president. The Florida Ice Cream Manufacturers' Association recently was organized. W. J. Barritt of Tampa is president.

Improvements for Newberry—City Votes \$125,000 for Waterworks—Hospital to Be Erected.

Newberry, S. C., December 22—[Special]—This city has voted by four to one to issue \$125,000 of bonds for the construction of a new waterworks system. The supply will come from Bush River and the intake will be about two-and-a-half miles west of Newberry. Contracts will soon be awarded, the work to include a pipe line from the river to the present city reservoirs and a settling tank. The present pipe lines, stand-pipe and reservoirs in the city will become a part of the new waterworks.

At a recent meeting of the stockholders of the proposed Newberry County Hospital here, directors were elected for the institution. The directors then elected the following officers: George B. Cromer, president; Z. F. Wright, vice president; B. C. Matthews, treasurer; Mrs. J. N. McCaughrin, assistant treasurer; James B. Hunter, secretary, and Mrs. H. M. Bryson, assistant secretary.

The new hospital will be incorporated with a capital stock of \$50,000 and the board of directors will take immediate steps to secure a location and erect a building.

Approved Public Improvement Program at Baltimore to Cost \$19,500,000.

Mayor Howard W. Jackson of Baltimore, and city engineers have approved public improvement projects which will necessitate bond issues aggregating \$19,500,000, apportioned as follows: Sewers, \$10,000,000; paving, \$5,000,000; bridges, \$3,000,000, and conduits, \$1,000,000. Other projects which are being considered and which will involve a cost of \$6,000,000 or more, include the extension of Howard street to cost \$2,500,000; Franklin-Monument street viaduct, \$2,500,000, and the elimination of railroad crossings, \$1,000,000.

Mill Building Developments in Lancashire.

Manchester, England, November 29—[Special]—That Lancashire has every confidence in the cotton industry again enjoying prosperous times is supported by the decision of Sir John Holden to proceed with the construction of one of his two mills at Bolton. The mill which will contain about 125,000 spindles and preparation machinery, will be electrically driven. It is Sir John's intention to build another mill and that also will contain 125,000 spindles.

NEWS AND VIEWS FROM OUR READERS

[Publication in this department of letters from our readers does not mean that we either approve or disapprove the views expressed. We believe in a full and frank discussion of the mighty questions of the hour, for only in this way can the truth be found. Therefore we often publish letters with which we do not agree.—Editor Manufacturers Record.]

Where Manufactures and Agriculture Go Hand in Hand to the Profit of All.

H. P. WILDER, Agent of The Hampton Roads Fire and Marine Insurance Company, South Boston, Va.

What I value most about the MANUFACTURERS RECORD is the fearless manner in which it comments on any subject.

While I think that we as a country have often got the cart before the horse and have passed laws before the people were ready for them, and while those laws will eventually work out much to our advantage, the adjustment comes with such a shock that it is bound to meet with considerable opposition as is evidenced in the Prohibition matter. Still, it being a law we should try to obey it, as long as it is the law of the land. This need not however keep us from working for some adjustment which will improve the enforcement and the general working of the law.

How good it would be if we could all work for the general welfare of the country, for the open shop, with the privilege open to every man to work for his living as he may see fit, unhampered by the dictates of walking bosses or whatever they may be called, and co-operate for the good of mankind as the tri-state tobacco growers are doing, even though they are having the opposition of the vested interests who formerly handled the sale of the entire crop and can not understand why they should not be allowed to continue to earn an easy living just as they have done in the past. That the producer should think he has any rights is beyond them and they are resenting it bitterly.

South side Virginia will the coming year try out having a second cash crop adding cotton to the present tobacco crop. If it works out as well as the experimental crops did in 1923 the agricultural product of Halifax County will have a value of more than half a million increase over previous years.

The bankers and business men of the county are taking an earnest interest in this matter and expect to assist the move to the extent of their ability. Ginning facilities are guaranteed and this will mean that there will also open at this point a cotton market and if the planting is as large as is expected an oil mill is also among the future industries.

Col. Ira Vaughn of Halifax has been investigating sites in South Boston for the location of a shoe factory which is expected to employ about 400 hands. With the development of his various hydroelectric powers this looks like the start of considerable manufacturing in this locality.

Growth of agricultural and manufacturing interests side by side bespeaks sound, solid advancement for any community. It is something that the South has long needed.

To the Law and the Prophets.

T. H. TRAYLOR, LaGrange, Ga.

Please allow me to express my regret that our Georgia Judge quoting so largely from the Bible should have said so little of Bible law. Our Saviour said, "Think not that I am come to destroy the law or the prophets: I am not come to destroy but to fulfill. For verily I say unto you, till Heaven and earth pass, one jot and one tittle shall in no wise pass from the law till all be fulfilled."

There is more sane law in thirty minutes reading from Exodus 25 on, than in all our laws on the subjects treated. We allow a lawyer to call down a witness for telling the whole truth after swearing him to tell the whole truth.

He is also allowed to take a case and insist on a verdict for his client when he knows his man is guilty because he has taken a gift to defend. The divine law Exodus 23. 8, says "Thou shall take no gift, for the gift blindeth the wise and perverteth the words of the righteous."

We ignore the moral in much of our dealings and throw the Golden Rule to the winds when it crosses our selfish interests. Are we Christian in this? I say no.

A Young Girl's Appeal for Law.

KATHERINE WILKMAN, Long Island City, N. Y.

A copy of the MANUFACTURERS RECORD has just come into my hands, and it was certainly good to read some extracts from an address made by you to the Maryland Baptist Union Association.

I am just a young girl, and no one listens to a young girl, just because she is young, but I do wish that more of the real stuff that is contained in that address could be circulated among the old folks and young folks, and they could be waked up to the facts as presented there. I have tried to talk to people about these things, in my own humble way, but to them I am either biased, narrow-minded or mentally unbalanced.

Don't you think that the best way to reach the older people of the country is through their children in Sunday schools and in the public schools? If all the teachers were instilled with the principles that make for good Christians and true Americans, it is inevitable that the children will assimilate some of these principles, and in turn pass them on to their parents, who in their blindness and ignorance are "digging their own pit." After all the church and school are the backbone of the nation, and it is through them that the whole country can best be covered.

I am enclosing an advertisement from one of the New York papers, which is only typical of what the newspapers, and "respectable" people are doing to promote license and lawlessness.

What can be done about it? I would like so to help.

One Way Suggested as to How to Stop War.

S. H. GAITSKILL, Westminster, Md.

There is a reward offered for a plan to prevent war. If claims as to gas are correct I think the way is open, and very simple. Let every nation keep a supply of the most destructive, deadly gas that it is possible to make, and let it be known that an invading army would be met after it crossed the dividing line with a full charge of gas.

Inhuman, yes! but how much more inhuman than the German invasion of Belgium; how much better to have stopped the German army as soon as it was on Belgian soil. Let no nation take gas into another nation's territory; and it will be optional with the invader whether or not to take chances.

Were it positively known that any invader would likely meet utter annihilation as soon as it left home, I think there would be but few that would leave home, and there would be no wars if every nation kept its army on its own soil.

I would make the chances of quick and complete destruction so sure that there would be no war. Frightful, yes! So frightful as to prohibit. The invader would be the sufferer and not innocent peoples, as in the last war.

THE IRON AND STEEL SITUATION

Good Outlook for Steel Mills in January.

Pittsburgh, Pa., December 24—[Special.]—Up to this week, steel mill operations have not varied materially from the rate shown for November, but a few plants are now closed for repairs, taking advantage of the fact that no small part of the business recently booked has carried a stipulation that material is not to be shipped until after January 1, to avoid having it appear in the annual inventory.

All the prospects are that mill operations will be heavier in January than this month, and if so the average for the three months of November, December and January, regularly the months of lightest demand on account of the season, will be at the rate of about 38,000,000 tons a year, in steel ingots, or only, say, 12 per cent below the average rate in the year now closing, which has been a remarkably good tonnage year, seeing that it runs more than a third above the average of the four preceding years. Predictions are that steel buying will gradually increase after the turn of the year, and some predictions are already made that by March or April there will be a seasonal broadening out in the market, with larger tonnages and more extended deliveries being taken. As matters are going, only a moderate further increase in market activity would put the steel industry in line to make as much steel in 1924 as it has made this year.

Freight car orders placed in the past four weeks total 9000 cars, which looks like a poor showing against the recent talk of various individual inquiries for lots of 5000 or 10,000 cars at a time, but it represents a rate of 127,000 cars a year, which is by no means poor. The Chesapeake & Ohio has withdrawn an inquiry for 2000 gondolas on the ground, it is said, that prices were too high on the equipment specialties.

Fabricated steel lettings reported in the past week total 33,000 tons which with 52,000 tons in two preceding weeks represents a rate of 170,000 tons for a month, but the holiday season may prevent any such tonnage being actually closed this month. The Department of Commerce report just issued shows about 135,000 tons done in November, against 120,000 tons in October and 130,000 tons in September. Thus structural steel work is on the increase, and the average of 180,000 tons a month shown for the first half of this year may be reached next year.

Orders for steel from the automobile trade have continued increasing and some of the deliveries called for indicate that stocks have been gotten to a very low level for the January 1 inventory. There is a little contracting for the first quarter. The automobile trade has not succeeded in getting as many price concessions in placing steel orders as it expected, and in some lines it has obtained none.

The advance of 25 cents in the price of Pennsylvania crude oil gives the pipe mills further confirmation of their recently formed opinion that the statistical position of oil has rounded its turn, and a seasonally increasing demand for oil country tubular goods is expected next year, with fair chances of the year's tonnage exceeding that of 1923.

In the finished steel market as a whole the price situation has improved farther, whereas not so long ago progressive weakening was being predicted. The market has had only a few really soft spots, as for instance in sheets, and these spots are diminishing. In bars, shapes, plates, pipe and wire products there have been no irregularities. Manufactured steel products such as cold finished bars, cold rolled strips, nuts and bolts, rivets, etc., have been tending to grow steadier, one factor in this being the inability of the makers to secure concessions from steel mills on their various raw materials.

Connellsville coke is a shade easier this week, as \$4.00 can be shaded on spot furnace and \$4.00 can probably be done on first quarter contracts.

Pig iron is very quiet. Prices on foundry iron are well maintained but Bessemer and basic iron quotations are subject to some question.

Only Slight Cessation of Activity for Holidays in Birmingham District.

Birmingham, Ala., December 24—[Special.]—A feeling of optimism is noted in the industrial section of Alabama as the last week of the year is under way. A lull is on in the coal, coke, iron and steel markets, as well as in other lines. Production of pig iron is not to be disturbed in the least, a continuous output is the program. Some of the iron-melting plants have shut down and will be quiet for the week; during the shut down repairs are to be made.

Some of the industries which employ iron or steel in their daily operations will be back at work Wednesday of the week in order that the market be steady to meet demands. The Gulf States Steel Company paid off its labor Saturday last and announced resumption of operations at coal mines, ore mines, open hearth furnaces and in the finishing mills of the steel plant on Wednesday. The pressure pipe plants will be back in operation by next Monday. The sanitary pipe shops of the Birmingham Machine and Foundry Company will be producing pipe by Wednesday again and other plants of the district will be turning out their various products by the middle of the week.

In the meantime inventory will be taken and general offices of iron and steel manufacturing companies will be preparing for the coming year. Furnace interests have been receiving some inquiries for their products and there have been a few orders placed. It is believed that before the end of the week there will have been a change again and activity be under way in iron buying.

Production will continue steady for an indefinite period, the new year to be started on with considerable iron sold for future delivery. The quotations are still at \$21 per ton, No. 2 foundry, as base. Three companies are not seeking business but caring for such orders as they can at the prevailing price. Two companies are reiterating a scarcity of certain grades of iron for delivery during the first quarter of the year. The inclination is still strong for an advance of \$1 per ton as the new buying movement sets in. Confidence is again expressed that there will be an impetus felt in the buying immediately and that during the first month a large proportion of the balance of the probable make of the three months will be disposed of and sales made into the second quarter of the year.

The 22 blast furnaces in operation in Alabama are producing iron satisfactorily. The production for the month promises to be equal to that of the previous month and the yearly output will be next to the greatest of any year in the history of the industry, the largest make being in 1917, during the war. The Alabama Company is pushing the work of repairing on its Gadsden furnace but it is not yet to be stated when the work will be sufficiently completed to permit blowing in again, possibly not until early in February. This company has one blast furnace in operation and is meeting all demands with the probable make, its surplus iron having been wiped out.

The statistics as to coal production in Alabama for the year show an increase of more than 500,000 tons for this year as compared to 1922 and the output then was over 18,000,000 tons. The coal market right now is fairly good only, the

demand for steam coal being rather slow. Contracts in hand will warrant the same condition for several months of the coming year. There is a possibility of a big demand for coal if there should be differences between operators and labor in the bituminous coal fields of the middle west.

The coke market is dull in the Birmingham district. The production has been cut by the shutting down of a number of by-product coke ovens and closing up of a number of bee-hive ovens. Quotations for coke still hover around \$5 to \$6 per ton, both by-product and bee-hive.

The scrap iron and steel market is still slow though dealers express some optimism as to the coming year. Considerable correspondence has been handled recently between the various scrap centers of the country as to probable market conditions in the future. Dealers here have placed considerable stock on yards and are prepared for a strong demand. Railroads are offering great quantities of old material. Quotations have not changed any during the present month.

Quotations for pig iron and iron and steel scrap in the Birmingham district are as follows:

PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$21.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$21.50; iron of 2.75 to 3.25 per cent silicon, \$22.00; iron of 3.25 to 3.75 per cent silicon, \$22.50; iron of 3.75 to 4.25 per cent silicon, \$23.00; charcoal iron, f. o. b. furnaces, \$32.00 to \$33.00.

OLD MATERIAL.

Old steel axles	\$17.00 to	\$18.00
Old iron axles	20.00 to	21.00
Old steel rails	13.00 to	14.00
Heavy melting steel	12.00 to	13.00
No. 1 cast	18.50 to	19.00
Stove plate	14.00 to	15.00
No. 1 R. R. wrought	14.00 to	14.50
Old car wheels	15.00 to	16.00
Old tramcar wheels	16.00 to	16.50
Machine shop turnings	6.00 to	7.00
Cast iron borings	8.00 to	9.00
Cast iron borings (Chem.)	16.00 to	17.00

Carpenters and Joiners Plan \$5,000,000 Home in Florida—Brotherhood Purchases 1700 Acres of Land Near Lakeland.

Lakeland, Fla.—The purchase of 1700 acres of land near this city by the United Brotherhood of Carpenters and Joiners, whose headquarters are at Indianapolis, Ind., has been concluded here, and it is announced that the brotherhood will expend from \$4,000,000 to \$5,000,000 for the establishment of a home for disabled and aged members of the order. Eleven members of the executive board of the brotherhood have been in Lakeland for several weeks negotiating the purchase of the property, the deal being finally closed at a conference of interests in which Kaufmann & Haldeman of this city represented both the Chamber of Commerce and the local real estate board.

The decision to select the Lakeland site was influenced by its high altitude, good water, excellent drainage, rolling topography, and splendid soil of the tract, together with its present development. The purchase price is said to be \$700,000. The tract borders Lake Gibson and is so located that its nearest point to Lakeland is less than a mile and its farthest point about four miles. Three hundred acres are in bearing orange grove, 450 in truck while the remainder is adapted to citrus.

In the establishment of the home, it is the intention of the Brotherhood to erect bungalows, hospital, a large community house and provide playgrounds, etc.

Officers of the Brotherhood include William L. Hutcheson, president; John T. Cosgrove first vice-president; Frank Duffy, secretary, and Thomas Neale, treasurer. These, with T. M. Guerin, John H. Potts, James P. Ogletree, J. W. Williams, W. A. Cole and Arthur Martel, compose the executive committee, all the members of which are at Indianapolis.

RAILROADS

Motor Car Train on Mississippi Central.

A railroad in the South that has recently adopted motor car service to handle light passenger traffic is the Mississippi Central, which is operating a gasoline motor car and trailer on its branch from Hattiesburg to Beaumont, Miss., 27 miles, and results are reported very satisfactory. The motor car, in addition to the gasoline engine that supplies motive power, contains also a baggage compartment and seats for 12 passengers. The trailer car will accommodate 34 passengers. Each car has four wheels, two forward and two back, which gives the equipment a light and attractive appearance. Headlight, bell and pilot are on the front of the motor car. This equipment was built by the Four Wheel Drive Auto Co., Clintonville, Wis., which also manufactures the F.W.D. motor truck. The engine is a six cylinder machine of sixty-two horse power which operates all of the four wheels of the motor car. There are four speeds forward and eight speeds reverse. Westinghouse air brakes are used.

B. & O. Income Statement.

At the meeting of directors of the Baltimore & Ohio Railroad Co. December 19 the officers were re-elected and the income statement for the year, (December being estimated), was made public as follows: Net railway operating income, \$43,319,434; gross corporate income, \$49,345,586; net corporate road Co. December 19 the officers were re-elected and the income, \$23,241,169. Deducting from this \$5,250,000 in accordance with the loan agreement of July 1, 1919, and \$2,354,526 to pay dividends on the preferred stock, leaves \$15,636,642 surplus available for common stock dividends and expenditures for improvements, etc.

The Big Freight Movement Continues.

Loadings of revenue freight on the railroads during the week ended December 8 totaled 913,774 cars or 78,478 cars more than were laden during the previous week, which included the holiday of Thanksgiving Day. As compared with the corresponding week of last year the total showed an increase of 4600 cars and as compared with the same week in 1921 an increase of 172,433 cars. There were increases over the previous week reported from all railroad districts. Since January 1, 1923 the total loadings of revenue freight have been more than 47,400,000 cars, as compared with over 40,700,000 cars for the same period of 1922.

New Cars and Engines This Year.

The car service division of the American Railway Association reports that a total of 21,973 new freight cars and 333 new locomotives were put in service on the railroads during November. This makes total installations of new equipment for the first eleven months of the year as follows: Freight cars, 177,845; locomotives, 3704. On December 1 the railroads had 36,789 freight cars and 739 locomotives ordered built and deliveries on these orders are being made.

Receiver for Street Car Line.

J. H. Bridges, of Burlington, N. C., has been appointed receiver of the Alamance Railway Co., as the result of the filing of a bill of complaint in equity by the American Trust Company, of Richmond, Va. It is alleged that interest on \$120,000 of bonds of the railway has been in default since May 15, 1918. The railway connects Burlington, Graham and Haw River, N. C. It is a street car line and the receiver is authorized to continue its operation.

New Equipment.

Orders for new railroad equipment recently reported include 1000 box cars for the St. Louis Southwestern Railway, of which 500 will be built by the Mount Vernon Car & Manufacturing Co. and 500 by the American Car & Foundry Co., and 250 box cars for the Chicago & Alton Railroad from the Pullman Company.

Application for New Financing.

The Seaboard Air Line Railway Co. has applied to the Interstate Commerce Commission for authority to issue \$1,620,751 of 6 per cent equipment trust certificates which are to be sold at 95½.

Cotton Raising Possibilities in the Western Parts of Texas and Oklahoma.

Wm. G. Capps, president of the Planters State Bank, Mountain Park, Okla., writes to the MANUFACTURERS RECORD concerning the cotton growing possibilities of western Oklahoma and western Texas and expresses the belief that those regions will eventually become much greater producers of cotton than they are now. He says that they do not have the boll weevil and that in six years out of ten excellent crops are made, while in the other four years crops average with those in the rest of the cotton belt, and a 75 per cent failure is unknown.

Continuing, Mr. Capps says: "Given a reasonable amount of moisture, western Texas and western Oklahoma produce cotton cheaper and more abundantly than any other section of the world. Our climatic conditions and the ants which literally swarm in all fields of the plains section do not permit the boll weevil to ravage as it does in the eastern cotton belt. One family here can cultivate 125 acres of cotton, while the same family could only cultivate 25 to 30 acres of cotton in the eastern states.

"We do not have to use fertilizer as the eastern states do. For these reasons cotton can be produced in western Texas and western Oklahoma a great deal cheaper than it can in any other section of the cotton belt. Cotton now commands a high price and will continue to do so for many years. Cotton is the one farm product in which there exists a shortage and a serious one at that. * * * High priced cotton will naturally create a desire to produce more cotton and under the easiest and most profitable circumstances. Cotton raisers in the eastern belt, under the stimulus of high prices, will in the future investigate the cotton raising possibilities of western Oklahoma and western Texas with the result that the next few years will see a great emigration from the eastern cotton belt to this section with the result that western cotton lands will greatly increase in value."

In the course of a consideration of weather conditions and rainfall since 1907 Mr. Capps says that while this year was very dry and short crops resulted there have been about 20 inches of rain this autumn, or more than double the rainfall of any other autumn on record. The result is that the subsoil in western Texas and western Oklahoma has more moisture stored than ever before. During dry years hot winds did more crop damage than lack of moisture, but as the plains are now saturated there are no hot winds, and this condition will last for a long time. After the heavy rains of the fall of 1907 there were excellent crops of all kinds for three years. Drouth in 1911 caused a short crop but a limited amount of rain resulted in splendid crops for 1912. Drouth and a short crop was the condition in 1913, but that fall there were good rains and splendid crops of all kinds resulted for four years. Another drouth occurred in 1918, but the rains in the fall were followed by good crops for the next three years. In 1922 it was very dry, with short crops, as was this year.

TEXTILE

Woolen Mills to Build Addition.

Cleveland, Tenn.—Construction plans of the Cleveland Woolen Mills provide for the erection of an additional four-story building, 60 by 150 feet, which will give the plant necessary floor space for its mill work as well as for its tailoring shops. It is stated that the company also plans to build a new dye house during the coming year, this building to be 60 by 200 feet, one story high.

Two Mills Merged at Landrum, South Carolina.

Landrum, S. C.—A merger has been effected here by the Blue Ridge Hosiery Mill and the R. L. Lee & Co. damask mill, both of Landrum. The new company is to be known as the Blue Ridge Mills and the present capital stock will be increased to a figure between \$150,000 and \$200,000.

Officers have been elected as follows: J. S. Carpenter, president; Roy P. Whitlock, vice-president, and Roland Lee, secretary and general manager.

Langley Mills to Build Napping Plant.

Langley, S. C.—Plans are being prepared by Lockwood, Greene & Co., engineers of Boston and Atlanta, for the construction of a cloth room addition to the Langley Mills here. The mills organization is offering \$600,000 of first mortgage sinking fund gold bonds, and announces that proceeds derived from the issue will be used for the construction of the napping plant which will enable it to finish its goods to the extent of full capacity. The plant is estimated to cost \$120,000 and is expected to be in operation by March 1.

The company also plans to build new houses in its mill village.

Loray Mills to Build Addition—Will Contain 25,000 Square Feet and House 200 Broad Looms.

Gastonia, N. C.—Contract has been awarded here for the erection of an addition to the Loray Mills, a branch of the Manville-Jenckes Co. of Pawtucket, R. I. The new addition will be a one-story structure and cover 25,000 square feet, affording space for 200 broad looms. It will be devoted to the manufacture of tire fabrics.

The Aberthaw Construction Co. of Boston and Atlanta, retained under a five-year contract to do all the building for the Loray Mills, will construct the new addition. These mills are the largest Southern project of the Manville-Jenckes company, operating at present 135,000 spindles.

Coming Meetings of Textile Industries.

Forthcoming textile conventions, meetings and expositions, include the following:

Silk Association of America, January 12, Hotel Astor, New York; National Wholesale Dry Goods Association, January 14-17, Waldorf-Astoria, New York; Rhode Island Textile Association, January 24, Biltmore Hotel, Providence; Twentieth Annual Knitting Arts Exhibition, April 7-11, Commercial Museum, Philadelphia; American Cotton Manufacturers Association, May, Atlantic City, N. J.; Southern Education Convention, auspices Textile Hall Corporation, June 9-14, Greenville, S. C.; Southern Textile Association, June 13 and 14, Mayview Park Hotel, Blowing Rock, N. C.; Cotton Manufacturers Association of North Carolina, June, Blowing Rock, N. C.; Tenth Exposition of Chemical Industries, September 28-October 3, New York, and Sixth Southern Textile Exposition, week of October 20, Textile Hall, Greenville, S. C.

GOOD ROADS AND STREETS

Missouri Awards Road and Bridge Contracts.

Jefferson City, Mo., December 22—[Special.]—Contracts have been awarded by the State Highway Department here, for the following roads and bridges: Grading 2,426 miles of road in Atchison County, George W. Condon, Omaha, Neb., contractor at \$12,935; two sections in Howell County, 4.754 miles and 4.811 miles, Muskogee Contracting Co., Tulsa, Okla., contractor at \$20,680 and \$15,296 respectively.

W. E. Gillioz, Monett, Mo., was awarded contracts at \$6050 and \$7792 for building two concrete bridges in De Kalb County, and at \$9945 for one in Buchanan County steel bridge in Texas County, Day & Richards, Summerville, Mo., at \$2505; concrete bridge in Howell County, Muskogee Contracting Co. at \$12,623; two concrete bridges in Atchison County, George W. Condon, contractor for both at \$4574 and \$7211 respectively; cleaning and painting bridge in Monroe County, Newton Construction Co., California, Mo., \$400, and for two steel bridges in Wright County, Short & Bramer, Monett, Mo., \$2716 and 1744.

B. H. Piepmeier is the chief engineer of the State Highway Department.

Paving Brick Shipments Remain High.

Considering seasonal influences, shipments of vitrified paving brick for November were running above normal, 64 per cent of the industry's tonnage reporting total shipments of 21,689,000 according to a report made to the Department of Commerce by the National Paving Brick Manufacturers Association. In October 66 per cent of the industry's tonnage reported shipments of 34,287,000.

Unfilled orders on hand declined from 64,531,000 for October to 54,535,000 for November. For the first time since last spring the total number of brick manufactured for the month ran greatly in excess of shipments indicating that companies are manufacturing for stock in anticipation of late winter and early spring shipments.

Bids on 25 Miles in a Texas County.

Robert Lee, Tex.—Sealed bids will be received by the Commissioners Court of Coke County until January 3 for the construction of more than 25 miles of road and one bridge in the county. The work will be divided into three sections, the first to embrace 11.447 miles, from Robert Lee to Bronte, the second, 14.47 miles, from Bronte to the Nolan County line, and the third to cover Oak Creek bridge, which will be 237 feet long and consist of one 70-foot steel span with concrete approaches.

Detailed plans and specifications may be seen at the office of J. E. Beavers, county engineer, Bronte, and at the State Highway Department at Austin. E. J. Stockton of Robert Lee is the Coke County judge.

Tennessee Plans 800 Miles of Road in 1924.

Nashville, Tenn.—A total of more than 800 miles of roads will be constructed in Tennessee during 1924, according to an announcement by J. G. Creveling, Jr., a member of the State Highway Commission. In the first division, it is planned to build 182.3 miles; second division, 172.4; third division, 212.9 miles and in the fourth division, 241.5 miles.

Federal aid construction in the first division will cover a total of 137.3 miles distributed among Sullivan, Bradley, McMinn, Anderson, Loudon, Greene, Campbell, Cocke and Roane counties, while state aid roads will embrace 45 miles distributed among Blount, Monroe, Jefferson, Loudon, Roane and Sullivan counties.

Additional Space Secured for Road Show.

According to the announcement of C. M. Upham, convention and show manager, the demand for space at the Road Show of the American Road Builders' Association to be held in Chicago January 14 to 18 has proven so great that it has been necessary to add the Wilson Building to the group of structures which will house the exhibits. This will give 4600 square feet of extra space to the floor area of the Road Show and is made possible through an arrangement with the Austin Machinery Corporation who will occupy a part of the building.

All space in the Coliseum, the Coliseum Annex and the Greer Building was taken several weeks ago and since then Mr. Upham has been trying to get additional room for those for whom it was impossible to provide when the original allotment was made.

Louisiana Wants Bridge Bids.

Baton Rouge, La.—Sealed bids will be received at the office of the Louisiana Highway Commission here until January 15 for the construction of Bayou Vidal bridge on the Tallulah-St. Joseph highway in Madison and Tensas parishes; Bayou Macon bridge on the Tallulah-Monroe highway in Madison and Richland parishes, and Bayou Vermilion bridge on the Lafayette-Broussard highway in Lafayette parish.

The Bayou Vidal bridge will contain a 60-foot span, while the Bayou Macon bridge will have three 80-foot spans and the Bayou Vermilion bridge, one 80-foot span, all of the riveted pony truss type.

Plans and specifications may be obtained from J. M. Fourmy, state highway engineer at Baton Rouge.

Franchise to Build \$500,000 Toll Bridge.

Texarkana, Ark.—A franchise has been granted by Judge Nolan of Miller County to Mayor George Conway of Texarkana and J. B. Shultz of Fulton, Ark., who plan to build a \$500,000 toll bridge across the Red River at Fulton. A similar franchise, it is said, will be granted by County Judge Wilson of Hempstead County. The bridge will be located on the Bankhead Highway and will connect Miller and Hempstead counties.

Provisions of the franchise specify that work on the bridge must begin within two years and must be completed within five years. It is stated that tolls for all traffic will be the same as fixed by the Arkansas statute for ferries, with the exception of automobiles.

Jackson Parish to Vote on \$250,000 Bond Issue.

Jonesboro, La.—Jackson Parish will vote January 9 on a bond issue of \$250,000 for the purpose of building two additional roads under the supervision of the Louisiana State Highway Commission. One of the roads will extend from Ruston by way of Chatham to Columbia, and the other, which will be known as the Jonesboro-Eros-Monroe highway, will connect these towns, beside making connections with highways already built.

To Build Grade and Drainage Structures.

Cameron, Tex.—Bids will be received by Giles L. Avirett, county auditor, at his office here, until January 9 for the construction of grade and drainage structures on 11.38 miles of road in Milam County. Detailed plans and information may be obtained from the State Highway Department at Austin, or from A. F. Mitchell, engineer, at Cameron.

Three Missouri Bridges to Cost \$170,000.

Jefferson City, Mo., December 22—[Special.]—The Missouri State Highway Commission has awarded three bridge contracts totaling \$169,028. One bridge will be located in Cape Girardeau County on the state road from Sikeston to Cape Girardeau, over the Little River diversion channel, and will consist of one 150-foot and two 100-foot steel truss spans, with a concrete floor and 20-foot roadway. Contract for the structure has been awarded to the List & Weatherby Construction Co. of Kansas City, Mo., at \$135,632. The same contractors also received the award at \$7450 for building a bridge over a drainage ditch in the same county, the work to include a 10-foot reinforced concrete slab span, with a 20-foot roadway and two concrete abutments.

For the construction of a bridge over the Castor River in Madison County on the state road from Marquardt east, M. E. Gillioz of Monett, Mo., was awarded contract at \$25,946. This structure will have two 130-foot steel truss spans, concrete floor and a 20-foot roadway.

Contract Awarded for Neches County Bridge.

Beaumont, Tex.—Jefferson County officials have awarded contract to the Brown-Abbott Construction Co. of Dallas, for the construction of the Neches River bridge here at the foot of Ash street. Full details of the bridge have not been worked out, as the county has not decided whether it will accept federal aid. If the offer of the government to participate is accepted, it is estimated that the bridge will cost about \$335,000, and if the county declines the offer of government aid the cost will be about \$273,000.

It is stated that work on the bridge will begin without delay.

Will Advertise for Bids on \$250,000 Bridge.

La Grange, Tex., December 22—[Special]—Fayette County will soon advertise for bids to construct a \$250,000 bridge here. The structure will measure 1180 feet over all and consist of three steel spans aggregating 580 feet, with 600 feet of concrete approaches. Bids will be asked either as a whole or separately, on the sub-structure for the main spans, superstructure of main spans, approach spans and approach embankment.

Plans and specifications may be obtained from the office of J. P. Kearby, Jr., county engineer at La Grange, or from the office of the State Highway Department at Austin.

Wants Sub Bids on Road Construction.

The Barber-Fortin Co. of Jacksonville, who recently secured a contract for the construction of road project No. 544-B in Pasco County, Fla., as referred to in the MANUFACTURERS RECORD, wire the following details about the contract for the road: "Length, 11.33 miles, including 81 acres of clearing, 168,000 cubic yards of excavation, 26 concrete culverts and 8-inch rock base 17 feet wide. Want sub bids on grading and concrete culverts. Grading can be sub-let as whole or in sections."

Contracts for Two Roads to Cost \$353,000.

Palestine, Tex.—Henderson & Co., of Omaha, Tex., have been awarded contracts by Anderson County for the construction of the Montalba road and the Brushy Creek road, the total cost of construction being \$353,514. The former project will cover 9.8 miles of concrete, for which the price is \$321,071, while the latter is 10 miles in length and will be of gravel. In addition there will be 4347 square yards of concrete paving in connection with the Montalba road.

Trailer Manufacturers Association of America Elects.

At a recent meeting in Detroit of the Trailer Manufacturers Association of America, whose headquarters are in New York, M. E. Crow of Troy, Ohio, was elected president, succeeding J. H. Fertig, who resigned after a service of several years. Other officers elected include H. C. Fruehauf, Detroit, first vice-president; S. B. Winn, Lapeer, Mich., second vice-president, and Henry M. Wood, Cincinnati, secretary-treasurer. Allan P. Ames of New York, who has been acting as secretary of the membership committee, has been formally appointed manager of the association. The only change in the executive committee was the election of S. E. Liedabrand of Springfield, Ill., to fill the place vacated by the resignation of Mr. Fertig.

Contract for Six Miles of Road.

McKinney, Tex.—Contract has been awarded to the Tibbetts Construction Co., Fort Worth, for the construction of 6.19 miles of federal aid road in Collin County on project No. 402. This road will be of concrete and will cost about \$250,000.

For building a bridge in the same county, the Brown, Abbott Co. of Dallas, was awarded contract at \$81,446. The structure will consist of forty-three 20-foot concrete slabs, 80-foot and one 43-foot concrete girders.

T. O. Murray is the county judge and F. W. Cawthon of McKinney is the county engineer in charge of construction.

Kentucky Invites Bids for Two Bridges.

Frankfort, Ky., December 17—[Special.]—The State Highway Commission will receive bids at its office here until January 8 for the construction of two bridges over the Cumberland River in Harlan County. One of the structures will consist of two 150-foot steel spans, and the other of a 140-foot steel span, both bridges to have creosoted floor and to carry a 20-foot roadway.

Information, forms of proposals, etc. may be secured from the office of Joe S. Boggs, state highway engineer, Frankford.

8820 Miles Federal Aid Roads Completed in Year.

Washington.—According to the annual report of Thomas H. McDonald, chief of the Bureau of Public Roads of the Department of Agriculture, a total of 8820 miles of roads of all types were completed throughout the United States with federal aid during the fiscal year ended June 30, 1923. Added to the mileage already completed this brings the total of completed federal aid projects up to 26,536 miles. Projects under construction at the close of the year totaled 14,772 miles, and were estimated at 53 per cent complete.

Asks Bids on Five Miles of Road.

Baton Rouge, La.—Bids will be received by the Louisiana Highway Commission at its office here until January 15 for building 5.426 miles of gravel road in St. Landry Parish, from Opelousas toward Ville Platte. Information as to location, character and extent of work and other details may be obtained from the office of the commission. W. T. Peterman is chairman of the commission and J. M. Fourmy is the state highway engineer.

The Kansas City Structural Steel Co., Kansas City, Mo., has been awarded contract to erect the steel frame for the new 10-story Board of Trade building to be erected here by Mrs. Rodella Dwight Lease. The building will cost about \$1,250,000, the Pratt-Thompson Construction Co. of Kansas City having been previously awarded general contract. McKenney & Trask of Kansas City are the architects.

LUMBER AND BUILDING MATERIALS

Improved Lumber Movement Shown.

Washington, Dec. 20—While there was a slight decrease in production, there was a noticeable increase in shipments and orders for the week ending December 15, according to reports received by the National Lumber Manufacturers Association for 389 of the larger commercial sawmills of the country, as compared with revised reports from 387 mills of the preceding week. Production decreased 4,154,110 feet, shipments increased 16,281,466 feet and orders 20,794,896 feet. The 129 reporting mills of the West Coast Lumbermen's Association and the 137 reporting mills of the Southern Pine Association show an increase in unfilled orders on hand from 653,735,489 feet of the preceding week to 687,237,990 feet for the week ending December 15.

For all the mills of the 7 reporting associations, shipments were 98 per cent and orders 94 per cent of production. For Southern Pine Association mills these percentages were 86 and 111, and for the West Coast mills 81 and 85. Most of the mills have a normal production for the week, according to which actual production was 102 per cent, shipments 88 per cent and orders 100 per cent.

The following table compares the lumber movements for the three weeks indicated:

	Past Week	Corresponding Week 1922	Preceding Week 1923 (Revised)
Mills	389	380	387
Production	231,546,041	193,841,117	235,700,151
Shipments	204,516,212	218,780,985	188,234,746
Orders	233,624,591	228,545,594	212,829,695

Reports received this week from 14 of the California pine mills, representing 41 per cent of the total cut in the California pine region, give their production as 9,780,000 feet, shipments 10,216,000 feet, and orders 11,476,000 feet.

Compared with like period of 1922, the lumber movement for the first 50 weeks of 1923 is as follows:

	Production	Shipments	Orders
1923	11,965,093,591	11,760,526,063	11,268,939,419
1922	10,528,782,038	10,096,553,103	10,377,607,425
1923 Increase ...	1,436,311,553	1,663,972,960	891,331,994

The West Coast Lumbermen's Association wires from Seattle that production for last week was 100,355,024 feet,

LUMBER MOVEMENT FOR FIFTY WEEKS, AND FOR WEEK ENDING DECEMBER 15.							
	Production 1923	1922	Shipments 1923	1922	1923	Orders 1922	
Southern Pine Ass'n:							
Total Week (137 mills)	3,904,171,182	3,681,674,954	3,926,799,200	3,594,266,955	3,760,764,002	3,760,024,991	
Week (137 mills)	78,162,334	72,724,095	66,979,200	78,690,780	87,052,029	92,950,641	
West Coast Lumbermen's Ass'n:							
Total Week (129 mills)	5,112,850,899	4,275,749,689	5,193,624,212	3,945,007,667	5,084,885,562	4,040,493,189	
Week (129 mills)	110,355,024	87,062,273	89,379,195	97,149,155	93,671,003	99,115,678	
Western Pine Mfrs. Ass'n:							
Total Week (37 mills)	1,422,873,000	1,177,213,000	1,225,197,000	1,161,222,000	1,153,450,000	1,193,875,000	
Week (37 mills)	19,063,000	12,233,000	21,301,000	17,977,000	24,625,000	16,175,000	
California Redwood Ass'n:							
Total Week (15 mills)	480,097,000	403,088,000	444,892,000	354,239,000	430,067,000	377,303,000	
Week (15 mills)	9,738,000	8,215,000	7,391,000	7,609,000	7,904,000	8,078,000	
North Carolina Pine Ass'n:							
Total Week (43 mills)	433,008,010	480,375,017	444,614,811	488,770,254	354,434,855	477,951,245	
Week (43 mills)	7,512,783	7,603,749	8,567,417	7,466,927	6,416,559	5,175,275	
Northern Hemlock & Hardwood:							
(Softwood) Total Week (18 mills)	120,665,000	99,979,000	121,065,000	140,026,000	104,073,000	126,108,000	
Week (18 mills)	1,146,000	1,414,000	1,281,000	1,806,000	959,000	1,431,000	
Northern Pine Mfrs. Ass'n:							
Total Week (10 mills)	491,428,500	410,702,378	404,333,800	413,021,227	381,265,000	401,852,000	
Week (10 mills)	5,568,900	4,589,000	7,213,400	8,082,123	11,037,000	5,620,000	
General Total for 50 weeks:							
(Softwood)	11,965,093,591	10,528,782,038	11,760,526,063	10,096,553,103	11,268,939,419	10,377,607,425	
Northern Hemlock & Hardwood:							
Hardwood (50 weeks)	128,278,000	.....	158,042,000	.....	139,968,000	.....
Calif. White & Sugar Pine Mfrs.:							
(50 weeks)	1,166,606,000*	.....	705,323,000*	.....	.....	.....
General Total for Week	231,546,041	193,841,117	204,516,212	218,780,985	233,624,591	228,545,594	

*California White and Sugar Pine reports not included in totals, because "orders" not reported.

sales 93,671,003 feet and shipments 89,379,195 feet. Production for reporting mills was 26 per cent above normal, new business was 15 per cent below production and shipments were five per cent below new business.

Fisher Body Corporation Purchases 100,000 Acres of Southern Timber.

Memphis, Tenn.—The purchase of 100,000 acres of standing timber in Tennessee, Arkansas, Louisiana and Mississippi, estimated to yield 750,000,000 feet of lumber, has been effected by the Fisher Body Corporation of Detroit. It is stated that the property includes logging and cutting facilities, the developments to be undertaken by a subsidiary company now being organized under the name of the Fisher-Hurd Lumber Co., of which O. P. Hurd of Memphis will be president and general manager.

Special machinery will be installed in the mills enabling the company to log and mill timber for the purpose of producing sizes and grades best suited for body-building requirements.

Erection of Big Brick and Tile Plant.

Owensboro, Ky.—Satisfactory progress is being made on the construction of the big brick and tile plant under way here by the Owensboro Clay Products Co. at a cost of about \$150,000. Four kilns, each having eight furnaces and each have been completed. All machinery will be operated by electricity furnished by the municipal plant, electrical energy to be transmitted to a 200-horsepower motor which is to be delivered March 1.

It is stated that the plant will employ about thirty men at the beginning of operations and the production be around 20,000 brick or tile per day, which will be the capacity of the kilns. The equipment will have a daily capacity of 50,000, and more kilns will be added as needed. Cutshall & Son of Brazil, Ind. are the contractors building the plant.

A TAMPA COMPANY BUYS 360,000 ACRES OF HARDWOOD TIMBER LANDS IN SANTO DOMINGO.

Will Establish Big Furniture Factory—Important
Addition to Industries of Tampa—Company
Capitalized at \$3,000,000.

Tampa, Fla., December 22—[Special.]—The Florida Realty and Mortgage Company, of this city, has completed a big real estate deal which will mean ultimately the establishment in Tampa of one of the largest furniture manufacturing plants in the United States.

Holdings in the Republic of Santo Domingo of Charles D. Haines, a business man of Altamonte Springs, Fla., have been purchased by the realty company, which will develop the tract within a short time and will incorporate with a capital of \$3,000,000. The deal took in 360,000 acres, or 589 square miles, comprising some of the finest hardwoods now obtainable, including mahogany, dyewoods, cedar, lignum-vitae and other rare growths.

W. F. Miller, president of the company states that it will maintain a factory in Tampa and will ship its products to this port to be used by other factories that will eventually be established here. According to Mr. Miller, the parent company intends to turn out furniture of the highest grade.

Furniture companies throughout the country are now facing a scarcity of the best grades of hardwood timber, so it is expected that other factories will be invited to locate in Tampa.

Associated with Mr. Miller in negotiating the transaction were B. L. Hamner, a well known real estate developer, and J. R. Regnas, vice-president of the Florida Realty and Mortgage Company. Mr. Miller will head the new company and Mr. Haines will be chairman of the board.

It is proposed to make Tampa one of the leading hardwood and furniture manufacturing cities of the country.

As an indication of the importance of this timber land purchase in the eyes of the people of Tampa, the following from the Tampa Tribune will be of interest:

"The acquirement, by a Tampa company, of 589 square miles of land in Santo Domingo, containing the finest and largest supply of hardwoods to be found anywhere in the world, with the purpose of using this material to operate a great furniture manufacturing plant in this city, is one of the most notable industrial items ever printed in Florida."

"The Santo Domingo property, owned by Hon. Charles D. Haines, of Altamonte Springs, has been acquired by the Florida Realty and Mortgage Company, of this city, and the formation of a company capitalized at \$3,000,000, to use the woods from this tract in the manufacture of fine furniture in Tampa, will immediately follow, according to the statement of the men interested in the enterprise."

"Furniture manufacturing has long been boasted as one of the prospective industries of Tampa the location of the city and its convenient nearness to the sources of fine wood supply in Central America and the West Indies being one of the strongest recommendations for the establishment of such an industry here. Through the fortunate ownership by a Florida developer and a friend of Tampa, Mr. Haines, of this great tract in Santo Domingo and the enterprise of W. F. Miller and his associates in the Florida Realty and Mortgage Company, this advantage is about to be practically utilized."

"The Tribune has the utmost faith in the practicability and success of this project and has always believed that Tampa affords unusual opportunities for furniture manufacture. There is no limit to the possibilities of this particular project and The Tribune is confident that it will mean a great development for Tampa and Florida."

National Forestry Policy Bill Outlined.

Washington.—The first legislative result of nine months of work by the Senate Select Committee on Reforestation was the introduction on December 15, by Senator McNary, its chairman, of a bill that is intended to provide the foundation of a general American forestry policy.

The Secretary of Agriculture is directed, in cooperation with state officials and other agencies, to recommend systems of forest fire prevention and suppression for each forest region of the United States, with a view to the protection of forests and water resources; and the continuous production of timber on lands chiefly suitable for that purpose.

The appropriation of \$2,500,000 is authorized for purposes of preliminary investigation and administrative cooperation with the states. The federal government is not to spend more for these purposes in each state than the state itself appropriates, except for investigation. Participation of the states in federal aid is dependent upon their having systems and practices of forest fire prevention and suppression, that are fairly effective.

A special study of the relation of taxation to forest perpetuation and the drafting of favorable local taxation laws is directed. Other sections provide for cooperative work in the distribution of forest-tree seeds and plants to be used in reforestation or afforestation, \$100,000 being authorized for that purpose.

Another \$100,000 is authorized for cooperative work in advising and assisting farmers in establishing and keeping up wood lots, shelter belts, wind breaks, etc.

The Weeks' law of March 1, 1911, is to be amended so that the Secretary of Agriculture may have authority to recommend to the National Forest Reservation Commission, purchases of forested and cut-over lands within the watersheds of navigable streams, for timber production, as well as protecting the stream flow as at present. The Secretary of Agriculture is also authorized to accept on behalf of the United States gifts of land for forestry purposes; and he is authorized to determine the location of public lands valuable for stream flow protection or timber production which can be economically administered as parts of the national forests. Acting on such advice the National Forest Reservation Commission may recommend to the President to add such lands to existing national forests. The President is authorized to establish as national forests or parts thereof any lands within government reservations other than national parks, monuments and Indian Reservations, which in the opinion of the Secretary of Agriculture and the Secretary now administering such lands, are suitable for forest growing.

Southern Pine Orders Highest Since September.

The Southern Pine Association for the week ended December 14 reports as follows on 137 mills:

	Cars	Feet
Orders on hand beginning of week.....	11,043	231,141,033
Orders received during week	4,159	87,052,029
Total	15,202	318,193,062
Shipments during week	3,200	66,979,200
Orders on hand end of week	12,002	251,213,862

Production for the week was 78,162,334 feet. Shipments were 11,183,134 feet below production or 14.31 per cent. Orders were 8,889,695 feet above production or 11.37 per cent. Orders were 20,072,829 feet or 29.97 per cent above shipments. The week was 6,940,682 feet or 8.16 per cent below normal production and orders were 1,949,013 feet or 2.29 per cent above normal production. The increase in orders on hand amounted to 20,072,829 feet or 8.68 per cent.

BIG COAL AND TIMBER LAND PURCHASE IN WEST VIRGINIA.

**W. M. Ritter Lumber Company Buys 67,000 Acres
In Wyoming County.**

Huntington, W. Va., December 21—[Special.]—One of the largest timber and coal deals of the present year in southern West Virginia, has been consummated by the W. M. Ritter Lumber Company of Columbus, Ohio, in the purchase of 67,000 acres of coal and timber land held by the Dalton-Kelly interests in Wyoming county. It involves a consideration of about \$1,600,000.

The tract acquired is near the present holdings of the Ritter company and will be operated in connection therewith. In addition to the mineral or coal value the tract has an estimated cubage of 200,000,000 feet of standing timber.

The entire acreage carries coal embracing numbers three, four and six Pocahontas seams, also the Fire Creek, Beckley, Sewell and Douglas of the New River seams, as well as nine of the Kanawha seams. The Ritter company has no immediate plans for the development of the coal and will probably require no new mills or plants for the development of the timber, but will extend its logging railroads.

GAIN IN TIMBER SALES FROM NATIONAL FORESTS.

Land use and timber supply are the two major problems confronting the country in its use of forest lands, according to the annual report of Col. William B. Greeley, chief of the forest service, of the Agricultural Department. The report states that the annual drain on the country's forests amounts to 25,000,000,000 cubic feet, while growth replaces only 6,000,000,000 cubic feet.

More timber was cut from the national forests during the fiscal year ended June 30, 1923, than ever before in a similar period of time, and the receipts were greater than for any previous year. The timber cut totaled 991,982,000 board feet, the amount sold was over 2,000,000,000 feet, and the receipts from sales totaled \$2,641,244. Sales of timber on the national forests are made only with care to cut no more timber than the growth in order to insure a perpetual supply.

Slightly over 2000 miles of forest roads were constructed in national forests and more than 4000 miles of trails were built, bringing the total mileage of roads up to 6873 and of trails up to 10,675. In addition, maintenance work was conducted on 7242 miles of roads and 29,000 miles of trails.

YELLOW POPLAR STUDY BEING CONDUCTED.

A study of yellow, or tulip, poplar that is now being conducted by the Forest Service of the Agricultural Department, in northern Georgia and in Tennessee gives an opportunity to compare the growth of the species in these two regions. In Georgia heavy second growths are by no means uncommon. Trees 19 inches in diameter and 100 feet high have been found in closed stands averaging only 33 years of age. These trees were situated very favorably in the moist localities in cove bottom lands and showed very good crowns. The average of the larger trees on such plots is 13 inches in girth and 90 feet in height.

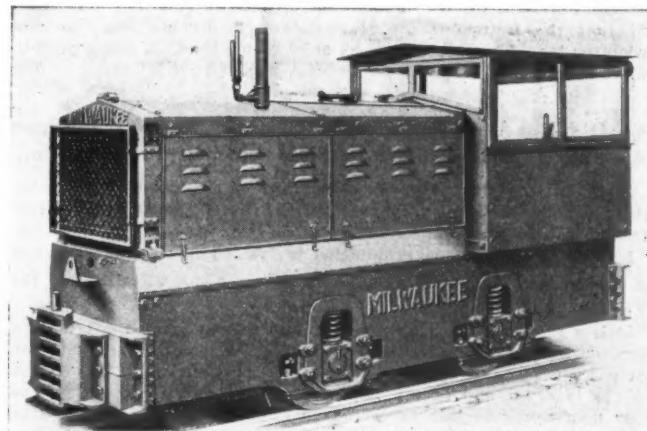
In Tennessee the trees run smaller, with a maximum diameter of 17 inches. Most of the stands of second growth, so the Appalachian Forest Experiment Station reports, have been found on old fields abandoned because of the loss of soil fertility or erosion and given up as worthless by the former cultivator. Here there are no true stands of yellow poplar, as the other less valuable species mingles with it in equal quantities. The forest examiners report that the susceptibility of the young trees to fire damage has evidently retarded the better quality tree and prevented its dominance.

MECHANICAL

New Gasoline Industrial Locomotive.

A new gasoline locomotive, the latest development of its builders for industrial haulage, is illustrated herewith. It is the Type H of the Milwaukee Locomotive Manufacturing Co., Milwaukee, Wis., who say that it embodies many exclusive features in design and construction. It will be exhibited at the Good Roads Show in Chicago January 14 to 18.

This improved gasoline locomotive is built in one standard design, in sizes ranging from $3\frac{1}{2}$ to 15 tons, and it can be furnished for any gauge of track and equipped with or without electric starting and lighting mechanism. The engine of



GASOLINE LOCOMOTIVE FOR INDUSTRIAL WORK.

the $3\frac{1}{2}$ and 4 ton machines is of the well known Hercules Model C, four cylinder, heavy duty type with 4 inch bore and 5 inch stroke and is capable of developing forty horse power at 1400 revolutions per minute. The engine of the 6 and 7 ton machines is of the Beaver Model JE, heavy duty type, four cylinder, with overhead valves and removable head, and has $4\frac{3}{4}$ inch bore and 6 inch stroke and is capable of developing 5 horse power at 1000 revolutions per minute. The engine of the 9 and 10 ton machines, is of the Beaver Model JD, heavy duty, six cylinder with $4\frac{3}{4}$ inch bore and 6 inch stroke, with overhead valves and removable head.

All the engines used in these locomotives have force feed lubrication, force water circulation, Eisemann high tension magneto, Wheeler-Schebler carburetor, automatic air cleaner and maximum speed regulating governor.

The transmission, which is of the latest design of the Milwaukee Locomotive Manufacturing Co., is of the jaw clutch and gear type. In this type of transmission the gears are always in mesh, the speed changes and direction of travel being effected by means of jaw clutches. It is designed especially for heavy service in which the possibility of stripping the gears has been entirely eliminated. It is geared for four speeds both forward and reverse. The standard truck type of gear shift control is employed. Only two heavy roller chains are used to convey the power from the transmission drive shaft to the axles, link and pin or standard M.C.B. couplers are provided as desired. Journal bearings are of the Hyatt heavy duty type. The entire power unit is mounted on a sturdy subframe of great rigidity and strength. All bearings except those that are automatically lubricated are equipped with Alemite grease fittings. The whistle is operated by the exhaust.

Avoyelles Parish School Board, Marksville, La., will open bids January 9 for the erection of a 2-story brick school building at Bunkie, La., to cost about \$125,000.

Commendations, Kicks and Comments

Best for the South.

ARKANSAS BRICK & TILE COMPANY, Little Rock, Ark.—Can't get along without the MANUFACTURERS RECORD—Best magazine for the South in the United States.

A Strong Commendation from California.

T. H. ANDREW, Long Beach, Calif.—Enclosed find check for \$10.50. Please apply the amount as follows, viz.: \$10.00 in payment for two years subscription for your valuable paper, the MANUFACTURERS RECORD, and 50 cents in payment for one of your Blue Books.

I read several of the best magazines published in this country, and, of course, they cover in a measure current issues. However they handle them in a way not to offend their subscribers. In other words, a subscriber is of greater value to them than the principal or issue for which they are supposed to stand. I am thankful that the Editor of the MANUFACTURERS RECORD fears neither friend or foe. The RECORD means more to me than all other periodical reading I do.

We Did Not Go to War Until Germany Made War Upon Us and Thus Forced Us to Fight for Self Preservation.

J. F. HEALY, Omar, W. Va.—You are doing excellent work for America and Americanism in your journal that I cannot refrain from writing you in appreciation of your course.

I think your stand on prohibition is just right. If that law can be broken with impunity as it is in many if not all parts of the country, why cannot any law be broken?

It is a fact that too many men in high places break the law with more or less disregard for its enforcement, depending apparently on their high place to protect them from prosecution. This reacts on the ignorant and openly lawless element. The argument is, the poor man's grog is just as sacred as the rich man's. It should be of course, even though the poor man can much less afford good grog, not to mention poison, and he can much less afford to break the law as he has no way to defeat justice like the rich man has.

Then your rebuke of Lloyd George was a fine example of Americanism. The little fellow is smart, but as you say, he surely does not represent high class British opinion.

I do not entirely agree with you as to why we went into the war, however. We all knew we were worked up wonderfully by British anti-German propaganda very cunningly disguised in some cases, brazenly bold in others but British propaganda all the time.

We really entered the war when our government, professing neutrality, allowed its bankers to loan billions to England and to some extent to France. Then no doubt, these Anglo-American bankers became alarmed for the safety of their loans and turned themselves into active propagandists for our entry into the war, spending millions for that purpose and accomplishing their purpose.

There was no violent desire on the part of the country in general to enter the war. If Germany had played fair, we never would have gone in. But having gone in, the country was unprecedentedly united in the determination to win it. And we did win it. Without our aid England and France would now be Germany's vassal states in all human probability. Now although England has made a very favorable settlement of terms of payment she is determined to make us bear the onus of the most hellish conditions in Europe. As we wouldn't cancel her debt she must collect from her debtors, but she will do all she can to make us ashamed of ourselves. Hence Mr. George and the Lords. All wish two objects, to induce us to cancel and also to join in some sort of alliance to protect England. That is what it amounts to in the end.

Of course England is also playing another game, propaganda against France just as she spent millions for propaganda against Germany. Having grabbed a territory nearly as large as the United States and 40,000,000 people, England wants peace to exploit her new country and new subjects. She is busy trying to embarrass France which stood the great bulk of the loss, but one never hears of England offering to turn loose any of her grab.

In the same way, as you truly remarked, we do not hear any of our bankers who really got us into the war offering to cancel any of the bank's debts, do you? If the government cancels, the bankers will stand a much better chance of collecting.

Keep up your fight against foreign entanglements of every kind, big and little, and against cancellation in any form.

[This country went to war because as President Wilson said, "Germany was making war upon us." Not until Germany sank our ships, and murdered our people on the high seas did we go to war and that fact was clearly stated by President Wilson. We went to war therefore not to save England but to save America. Editor, MANUFACTURERS RECORD.]

A Wide Influence for Good.

MARGARET A. THORNHILL, Roanoke, Va.—Your paper is a regular visitor to the office in which I am employed and I very much enjoy your splendid editorials. It is true that the opinion of a mere stenographer counts for very little, but I want to express my appreciation of the way in which you make occasion to uphold the standard of Christianity and the positive stand you take on moral questions.

After having served our office the magazines are given to the boys and girls of our high school and they have found much helpful information in them. Your influence may be greater than you realize and may you continue to be the "exponent of America," the leading trade journal of our country.

The Manufacturers Record Is a Business Newspaper, Not a Political or Partisan Publication.

T. T. TIDWELL, Albany, Ala.—Yours is a Southern magazine devoted to the task of building up Southern industries and in every way helping to build up the South, or at least that is what you claim. The South now has an active candidate for the presidency in the person of the Hon. Oscar Underwood, of Alabama. The South has a chance to nominate and elect Senator Underwood, and you the MANUFACTURERS RECORD do not seem to even endorse the candidacy of the only man who has had a chance to be elected president from the South, for more than fifty years.

In addition to the above, the people of the South and the whole country, as for that, want Henry Ford to develop Muscle Shoals in Alabama, and the MANUFACTURERS RECORD is inclined to pour cold water on that proposition, hence I am little inclined to think that you are not altogether as sincere in building up the South as you would have your readers think.

For the above reasons I have decided to discontinue my subscription.

[The MANUFACTURERS RECORD has never discussed in advance of nomination candidates for the presidency. That is not the mission of this paper. Mr. Tidwell thinks we should urge Mr. Underwood, somebody else might think we should urge Mr. McAdoo, and somebody else would want to advocate their pet candidate. Even after the presidential conventions have met and adopted their platforms and named their candidates, advocacy by us would not be in our line as this is not a political or partisan paper. But protection to Southern interests without regard to party affiliations is a sine qua non from our standpoint. We expressed our views in the issue of December 13 as to the inadequacy of Mr. Ford's offer. Editor, MANUFACTURERS RECORD.]

FOREIGN NEEDS

[The MANUFACTURERS RECORD receives many letters from abroad asking for information about American goods, and others, from men who wish to represent American manufacturers. Without assuming any responsibility for these concerns, we publish a summary of the foreign letters of inquiry from week to week.]

In the Market for Hardware, Etc.

J. DASS & Brothers, Amritsar, India.—We deal in the following: Hardware, iron and steel, caustic soda, sundry goods of various kinds, cements, etc.

Candy Machinery, Etc., Desired.

D. G. Doukelis, P. O. Box 77, Athens, Greece.—I need some electric machines, (automatic), about 1½ yards square, for manufacturing candies, popcorn, caramels and other things in the confectionery line. It is desired to have these new style machines in windows so that people passing can see how candy making is done. Catalogues and price lists of such machinery are desired. I also need some small electric machines for roasting peanuts, chestnuts, etc., as well as automatic electric machinery for making baby dolls; different kinds of dolls, besides automatic machinery to make cigarette boxes, envelopes and in fact all kinds of boxes and bags. Automatic machines to make small tin cans are also needed. Catalogues and price lists are wanted.

Wants Goods and Materials.

Albert A. Cohen, Mazagan, Morocco.—Would like to purchase in the United States automobiles, trucks, automobile oils, metals, paints, varnishes, pianos, player pianos, pewter plates, pneumatic tires, hardware, tools, sheet glass, bicycles, motor cycles, enameled household articles, phonographs, Swedish iron in bars, size 3 by ½; steel in bars, sizes ½ to ¾. Can export in large quantities cereals, hemp, sheep skins, goat and ox skins, sheep wool, greased; cumin, almonds, goat wool, bones and rags, horns. The oils it is desired to import from the United States include cylinder and engine oils, motor oils, sewing machine oils, turbine oils, locomotive engine oils, oils for paints, transmission greases, raw soya bean oil, etc., etc.

Construction Department

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained. Further facts about any incomplete or incorrect item reported in these columns are always appreciated.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

Airplane Plants, Stations, Etc.

Md., Baltimore—Flying Club of America, Capt. Wm. D. Tipton, Keyser Bldg., reported to have obtained 5-year lease on Logan Field; will erect two new steel hangars, machine shop, radio station and other buildings to house the Maryland National Guard Air Unit.

Bridges, Culverts and Viaducts

Ark., Fulton—Mayor George T. Conway, Texarkana, and J. B. Shultz, Fulton, were granted franchise to construct toll bridge across Red River at Fulton, on Bankhead Highway, estimated cost \$500,000.

Fla., Tampa—City will build 3 bridges. Details under Road and Street Construction.

Fla., Telogia—N. W. Meggs, was awarded contract to build bridge across Telogia Creek, between Telogia and Hosford. Address County Commrs.

Ky., Pikeville—Pike County will build 5 bridges and substructure for 3 bridges. Details under Road and Street Construction.

Missouri—State Highway Dept., Jefferson City, Mo., let contract for 11 bridges as follows: Wright County, 2 bridges on road from Mansfield to Hartville; over Woods Fork of Gasconade River, 170-ft. and 61-ft. steel spans, to Short & Bramer, Monett, Mo.; over Licks Fork of Gasconade River, 100-ft. steel truss span; two 17-ft. wood trestle spans, to Short & Bramer; State Project Route 5, Sec. 86-A; DeKalb County, 2 bridges to M. E. Gillioz, Monett, Mo., on road from Clarksville to King City; over Morgan Branch; 40-ft. reinforced concrete deck girder span, at \$7792.40; over Stream; 20-ft. reinforced concrete slab span; 2 reinforced concrete abutments, at \$6050.70; State Project Route 31, Sec. 3; Atchison County, 2 bridges on road from Fairfax to Tarkio to Geo. W. Condon, Omaha, Neb.; over Cow Branch, two 12-in. reinforced concrete slab spans; concrete pier; 2 reinforced concrete abutments; at \$4574; over Branch, two 12-in. reinforced concrete slab spans; concrete pier; 2 reinforced concrete abutments, at \$7211.50; State Project Route 1, Sec. 6; Pettis County, over Stream, on road from Sedalia to Dresden; two 18-ft. reinforced concrete slab spans; concrete pier; 2 reinforced concrete abutments, to Bertram & Menefee, Sedalia, Mo.; State Project Route 12, Sec. 16; Monroe County, over Otter Creek, on road from Paris to Shelbina; 75-ft. and 22-ft. steel spans to Newton Construction Co., California, Mo.; State Project Route 15, Sec. 28; Texas County, over Jocks Ford, on road from Houston to Summerville; two 152-ft. steel truss spans, to Day & Richards, Summerville, Mo.; State Project Route 17, Sec. 43; Howell County, over Robins Drift, on road from Mountain View to Willow Springs; three 25-ft. reinforced concrete deck girder spans; 2 reinforced concrete piers, and reinforced concrete abutments to Muskogee Contracting Co., Tulsa, Okla., at \$12,623.80; State Project Route 16, Sec. 52; Buchanan County, over Stream, on road from Faustett

to St. Joseph; 14-ft. reinforced concrete arch span, spandrel filled to M. E. Gillioz, Monett, Mo., at \$9945.50; State Project Route 1, Sec. 34.

Missouri—State Highway Dept., Jefferson City, let contract for 3 bridges as follows: Cape Girardeau County, 2, on road from Sikeston to Cape Girardeau, to List & Weatherly Construction Co., Kansas City, Mo.; over Little River Diversion Channel, 150-ft. and two 100-ft. steel truss spans; concrete floor; forty-three 75-ft., four 16-ft. and 40-ft. I-beam spans, wood floor; 4 reinforced concrete piers; 48 creosote pile bents, at \$135,632.98; over Drainage Ditch, 10-ft. reinforced concrete slab span, 2 concrete abutments, at \$7450.28; State Project Route 9, Sec. 118. Madison County, over Castor River, on road from Marquand east, two 130-ft. steel truss spans, concrete floor and concrete pier; 2 reinforced concrete bents, to M. E. Gillioz, Monett, at \$25,946.99.

Mo., Kansas City—City, Marty H. Ramming, Pur. Agt., will receive bids until Jan. 3 to furnish material and grade $\frac{1}{4}$ mi. railroad siding, relocate 4/5 mi. electric railroad and highway, including reinforced concrete highway bridge, with 16-ft. span, north of Kansas City; plans, etc., from Board of Fire and Water Commrs., Kansas City, Mo., and Fuller & Matland, Engrs., 600 Walnut St., Kansas City.

N. C., Winston-Salem—City let contracts for following improvements: To Hagedorn Construction Co., Greensboro, N. C. for S. Main St. Bridge, Cherry St. Bridge, and S. Broad St. Bridge; Powell Paving Co., Disposal Plant Bridge, Shallowford St. Bridge; C. A. Heilig, Winston-Salem, Northwest Blvd. Under Pass, Northwest Blvd., culvert; Winn & Saunders, Chatham St. Bridge; H. H. Sherrill, S. Main St. Culvert. Address The Mayor.

Tennessee—State Highway Dept., Nashville, Tenn., will build 3 bridges. Details under Road and Street Construction.

Tex., Beaumont—Jefferson County let contract to Brown-Abbott Construction Co., Dallas, Tex., for reinforced concrete, 240-ft. steel swing bridge over Neches River at foot of Ashe St.; cost about \$273,000 if Federal Government offer is not accepted; \$335,000 if offer is accepted; contract let on unit basis. (Lately noted contract let to A. C. Macfarlane, Orange, Tex.)

Tex., Hearne—State Highway Dept., Austin, Tex., will receive bids soon to build bridge with concrete floor across Brazos River, between Hearne and Gause, near Valley Junction; estimated cost \$180,000. (Lately noted.)

Tex., La Grange—Fayette County plans building 1180-ft. bridge over Colorado River; 3 steel spans, totalling 580 ft., and 600-ft. concrete approach; estimated cost \$250,000; J. P. Kearby, Jr., County Engr. Lately noted. (See Machinery Wanted—Bridge Construction.)

Tex., McKinney—Collin County let contract

to Brown, Abbott Construction Co., Dallas, Tex., at \$81,446.54 for bridge near McKinney; forty-three 20-ft. concrete pile trestle slabs; 80-ft. truss; four 31-ft. and one 43-ft. concrete girders.

Va., Rocky Mount—Board of Supervs., Franklin County, let contract for 2 bridges as follows: At Boone Mill to Blue Ridge Mercantile Co., and at Callaway to Champion Iron Co., Wilmington, Ohio.

W. Va., Charleston—Details under Road and Street Construction.

W. Va., Clarksburg—Baltimore & Ohio R. R. Co., H. A. Lane, Ch. Engr., Baltimore, Md., plans building overhead crossing at Loveberry tunnel, near Owens Addition.

Canning and Packing Plants

Ga., Jackson—Company incorporated with \$100,000 capital, by N. E. Martin and G. W. Walker of Atlanta, Ga., to establish plant for canning pimento peppers.

Coal Mines and Coke Ovens

Tenn., Jellico—Jellico Blue Gem Coal Co. (lately noted incorporated, capital \$10,000), organized with Dr. J. W. Foley, Pres.-Treas.; J. C. Browning, Sec.-Mgr.; has about 100 acre coal land under development, daily output 100 tons.

West Virginia—Sullivan-Pocahontas Coal Co., general office, Tralee, W. Va. (lately noted as completing merger), capital \$7,500,000, organized with J. C. Sullivan, Pres.; J. B. Frank, Sec., both Tralee; will probably expend about \$1,500,000 during the coming year on improvements to the various plants.

W. Va., Wyoming County—Details under Lumber Mfg. Plants.

Cotton Compresses and Gins

Tex., Tom Bean—Tom Bean Gin Co., capital \$20,000, incorporated by S. L. Ricketts, P. H. Liby and others.

Drainage and Irrigation

Fla., Pensacola—Details under Land Development.

Miss., Sanatobia—Board of Drainage Commrs., of Tate-Panola Drainage Dist. No. 1 receives bids until Jan. 3 for following work: 309,406 cu. yds. of excavation main canal; 90,000 cu. yds. excavation Partee Canal; 22,000 cu. yds. excavation and enlarging old ditch in Panola County; Southern Engineering Co., Engrs., Clarksdale, Miss.

Tex., Freeport—T. J. Arlington, Commr. of San Bernard Drainage Dist. No. 9 invite bids for clearing, ditching and excavating in district; has \$24,000 available.

Electric Light and Power Plants

Fla., Sanford—Details under Water Works. Florida—W. S. Barstow & Co., Inc., 50 Pine St., New York City, reported to have acquired electric light plant of Cheney interests at Orlando, Fla., and power plants

at DeLand, Daytona Beach, Eustis, Leesburg and Lake Wales.

Fla., Miami—Details under Road and Street Construction.

Ga., Augusta—City reported to construct electric light and power plant. Address The Mayor.

Md., Baltimore—Consolidated Gas, Electric Light & Power Co., let contract to B. F. Bennett Building Co., 123 S. Howard St., Baltimore, to construct 2-story, fireproof building corner Fort Ave. and Leadenhall St.; 110x84 ft.; steam heat; cost \$57,000.

Mo., Ash Grove—Frank Kerr and associates contemplate purchasing electric light plant; will probably establish ice plant.

Mo., Fair Play—Sac River Power Co. has petitioned city for franchise for establishing lighting system in city, will also extend line from Humansville to Fair Play.

N. C., Wrightsville Beach—Tidewater Power Co., F. A. Mathis, V.-P., Wilmington, N. C. reported to have acquired 5000 acres of marsh land between Wrightsville and Wrightsville Beach.

S. C., Duncan—Southern Power Co., Charlotte, N. C., is erecting steam station known as Tiger Steam Station; have let various contracts for apparatus and construction; plant will not be used to supply any particular service but will be used in connection with Southern Power Co.'s system; have purchased two 18,750 k.v.a. General Electric steam turbines and Babcock and Wilcox type boilers; plant will be in operation early in fall of 1924; Wm. S. Lee, Cons'l Engr., 511 5th Ave., New York. (Lately noted.)

Tenn., Chattanooga—Home Electric Light Co. organized by Tom Ryall and others.

Tenn., Chattanooga—Graysville Home Electric Light & Power Co., capital \$10,000, organized with R. Guy Fry, Sec.

Tex., Maybank—City will install electric light plant; cost \$60,000. Address The Mayor.

Tex., San Antonio—San Antonio Public Service Co., are having plans prepared for placing converting equipment around certain exposed parts of machinery; switch boards and switches will be raised, etc.; practically all work will relate to power plant on Villita St.; cost \$150,000; E. H. Kifer, Pres. and Gen. Mgr.

Tex., Houston—Power Production Co., capital \$30,000, incorporated by C. S. Powers, John H. Roach and others.

Flour, Feed and Meal Mills

Ala., Mobile—Donahue Grain Co., Inc., chartered by Herbert M. Donahue, Jos. A. Ryan and others.

Foundry and Machine Plants

Tenn., Cleveland—Hardwick Stove Co., has begun construction of 4-story mounting room, brick, steel and glass construction; is receiving bids for the erection of 1-story moulding room of same construction, increasing capacity by 50 per cent; present construction is first of expansion program; total cost estimated at \$500,000.

W. Va., Charleston—Ideal Manufacturing Co., Box 947 (lately noted incorporated), organized with John G. Dulmer, Pres.-Mgr.; James W. Smiley, Sec.; have secured patent rights on coal loading devices to be manufactured, known as Ideal Loaders; invite bids for manufacture of small double drum electric hoists on self propelling carriage; also for building of different parts for making complete loader.

Gas and Oil Enterprises

Fla., Sanford—Details under Water Works.

Tex., Corsicana—Showers & Peacock Co., capital \$50,000, incorporated by A. E. Showers, Murray Long and others.

Tex., Fort Worth—Amie-Producers, Inc., chartered by F. E. Newell, R. H. McKinley and others.

Tex., San Antonio—Ami Oil & Gas Co., capital \$25,000, incorporated by F. D. Wheeler, H. F. Ewing and others.

W. Va., Fairmont—Simons Oil & Gas Co., capital \$20,000, incorporated by D. D. Simon, A. G. Martin and others.

Ice and Cold-Storage Plants

Ky., Carrollton—Spring Water Ice Co., increased capital from \$12,000 to \$20,000.

Mo., Ash Grove—Details under Electric Light Plants.

Tex., Port Arthur—Port Arthur Ice & Refrigerating Co. will erect 150x120x30-ft. ice plant on Lake Shore Drive opposite present plant, reinforced concrete construction, cost \$40,000.

Land Development

Ala., Brewton—Dr. A. M. Gowan and John R. Downing acquired 34 acres and will develop.

D. C., Washington—High View Land Co., incorporated by Wm. W. Keeler, Frank E. Bell and others.

Fla., Pensacola—N. E. Nystrom of Bristol, Conn., has acquired 1356 acres on Big Bayou and will develop for truck farming and Satursumus; will drain portion, construct roads, etc.

Fla., Tampa—Details under Road and Street Construction.

Fla., Volusia—East Coast Development

Co., Daytona, Fla., contemplates founding of farming community and general resort and otherwise improving tract of 10,000 acres; have built roads and water plant, hotel, etc., will begin extensive road program about Jan. 1; 2500 acres have already been cleared and farming operations will begin next spring; W. W. Sterling, of Chicago, is president of company.

Ky., Louisville—Louisville and Jefferson County Land Co., increased capital from \$10,000 to \$50,000.

Maryland—The F. M. Welles Corporation, 115 Broadway, New York, has acquired from The Farms Company of Maryland, 11,000 acres land in Charles County, between White Plains and Waldorf, will develop for immigrant colonization.

Md., Baltimore—Wilson Realty Co., 400 Equitable Bldg., capital \$100,000, incorporated by Myron S. Cotton, Roy M. Nichols and others.

Md., Baltimore—Lauretta Building Co., 2332 Riggs Ave., incorporated by John T. Wantz, Murray A. Myers and others.

Md., Baltimore—Edmondson Realty Corp., 743 Calvert Bldg., incorporated by John J. Boarman, Lawrence Schoenstein and others.

Md., Baltimore—Brothers & Kloess, Inc., 1710 E. Eager St., incorporated by James J. Brothers, John A. Kloess and others.

Md., Baltimore—J. G. Snyder & Co., Inc., 202 5th Ave., incorporated by James G. Snyder, Fred O. Evans and others.

Md., Baltimore—Bay Front Development Co., 3426 Eastern Ave., incorporated by James Cary Thompson, Arthur P. Greth and others.

Md., Albany—Albany Investment Co., capital \$25,000, incorporated by Geo. W. Reed, J. H. Degganger and others.

Md., Joplin—The Home Builders Investment Co., capital \$49,200, incorporated with H. L. Rogers, Pres.; T. C. Helm, Sec.

Md., Kansas City—Fairhaven Realty Co., incorporated by Edgar I. Knapp, Geo. E. Kimball and others.

Md., St. Louis—Victoria Land Co., incorporated by F. C. Donnell, T. F. McDonald and others.

Md., St. Louis—Frank W. Schramm Co., incorporated by H. T. Brinckwirth, F. J. Schramm and others.

Md., St. Louis—Benz Investment Co., capital \$15,000, incorporated by Wm. G. Benz, 2842 Meramec St.; John H. Gebken and others.

N. C., Farmville—Commercial Insurance Co., capital \$10,000, incorporated by J. R. Davis, A. C. Monks and others.

We Publish a Daily Bulletin of brief news items of business activities in the South and Southwest which open many Sales Opportunities.

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MANUFACTURERS RECORD

BALTIMORE, MD

N. C., Greensboro—Irvin Park Co., let contract for grading boulevard to bisect new suburban development connecting Wrightsville turnpike with East Wilmington Road; will also install water works and sewerage system.

N. C., High Point—Terry-Smith-Rawley Co., capital \$100,000, incorporated by R. B. Terry, C. D. Smith and others.

Okla., Cushing—Cushing Country Club will improve 160 acres of land; will build playground, tennis court, etc.; landscape ground and construct permanent driveways.

Tenn., Erwin—Erwin Cemetery Co., capital \$10,000, incorporated by R. H. Bradshaw, Sr., B. M. Allred and others.

Tex., Bonham—Valley Orchards, capital \$75,000, incorporated by A. B. Jacobs, Fred E. Bennett and others.

Tex., Houston—City Council approved expenditure of \$20,000 for improvements to playgrounds and parks; Herbert Godwin, Chrm. of Park Board.

Tex., Houston—City, Mayor Holcombe contemplate developing 133 acres for golf course, etc.; will expend about \$25,000.

Tex., San Antonio—Refugio Black Land & Improvement Co., capital \$150,000, incorporated by J. W. Warren, T. H. Plummer and others.

W. Va., Huntington—Solof-Schonthal Co., capital \$1,000,000, incorporated by A. Solof, D. C. Schonthal, H. A. Zeller and others.

W. Va., Morgantown—City and Kiwanis Club interested in development of Whitmoor 10 acre tract for park.

Lumber Enterprises

Fla., Tampa—Alexander Lumber Co., T. F. Alexander, Pres.; reported to have acquired site for new plant, 200x300 ft., known as block 23 of Lesley's subdivision of East Tampa; approximate cost \$100,000.

Miss., Hazelhurst—C. C. Spence contemplates erecting planing mill and dry kiln in South Hazelhurst.

S. C., Sumter—Sumter Planing Mill & Lumber Co., E. S. Booth, Pres., increased capital from \$20,000 to \$30,000.

Tenn., Cleveland—Hargis Lumber Co., is rebuilding plant. (Lately noted burned at loss of \$40,000.)

W. Va., Wyoming County—W. M. Ritter Lumber Co., Columbus, Ohio, purchased coal and timber lands held by Dalton-Kelley interests in Wyoming County; company wires Manufacturers Record, "Purchase includes 67,000 acres, 49,000 of which are lands in fee carrying timber. Entire acreage carries coal embracing Nos. 3, 4 and 6 Pocahontas, also Fire Creek, Beckley, Sewell and Douglas of New River seams, as well as 9 of the Kanawha seams. Property lies near other W. Va. timber holdings and will be operated in connection therewith. Will probably require no new mills or plants but only extensions of logging railroads. Have no immediate plans for the development of the coal."

Mining

Ark., Little Rock—Arkansas Granite Co., lately noted incorporated with \$150,000 capital, W. T. Barr, Pres., has 280 acres and will develop granite quarries; daily output one to ten cars of building materials; will install one channeling machine, 3 jack hammers and other quarry equipment and two 20-ton derrick and hoist; cost of machinery \$20,000. (See Machinery Wanted—Air Compressors.)

Md., Baltimore—Martex Products Corp., 100 Equitable Bldg. (lately noted incorporated, capital \$50,000), organized with Ray-

mond L. Lovell, Pres., Texas, Md.; Joseph P. Reynolds, Sec.-Treas., Equitable Bldg.; will quarry and crush marble; address machinery proposals to R. L. Lovell.

Md., Baltimore—Consolidated Whiteland Corp., Calvert Bldg., incorporated by Geo. S. Newcomer, Douglas H. Rose and others.

N. C., Hemp—Standard Mineral Co., increased capital to \$500,000.

Tex., Dallas—Gifford Sand & Gravel Co., capital \$20,000, incorporated by P. W. Gifford, C. W. Edwards and others.

Miscellaneous Construction

Fla., Fort Pierce—Storage Plant—Gulf Refining Co. has acquired site on Indian River Drive and will erect at once a 45,000-gal. capacity bulk storage plant and with the present warehouse facilities over the river will give a handling capacity of 75,000 gals. of gasoline and other products; materials all purchased; N. F. Holmes, local Mgr.

Fla., Miami—Docks—Miami Chamber of Commerce, Fred L. Weed, Executive Sec., approved plans for enlarging dockage space more than four time its present capacity; plans provide for building of three more slips between present docks and the new Bay Front park, each slip to be about 200 ft. wide by approximately 1000 ft. deep, also four slips each 200 ft. and from 1000 to 1500 ft. deep on south side of the causeway in the bay. Address The Mayor.

Fla., Miami—Bakers Haulover Comsn., J. C. Baile, Chrmn., Box 443, let contract to Marshall Construction Co., Ft. Lauderdale, Fla., to construct stone revetment and jetties, including 9000 cu. yds. stone for jetty base, 3000 tons stone jetty caping, 2000 cu. yds. stone revetment and 12,000 cu. yds. stone shore revetment; approximate cost \$114,000; Hobart Crabtree, Engr. (Lately noted.)

Fla., Tampa—Incinerator, Seawall, Dock—Details under Road and Street Construction.

La., Lake Charles—Channel—Calcasieu Parish Police Jury wil receive bids until Jan. 18 for construction of navigation channel, from Lake Charles to the Sabine River; channel to be 2.54 mi., 30 ft. deep, 125 ft. wide at bottom, from Station 714 east along Intercoastal Canal to Station 580, containing approximately 2,020,000 cu. yds. of earth to be moved, known as Section 3; Section 5—construction of channel 5 mi. long, 30 ft. deep, 125 ft. wide at bottom, from Station 58 on Intercoastal Canal, west, to Station 322, containing approximately 3,480,000 cu. yds. of earth to be moved; Fred Shutts, Parish Engr.

S. C., Spartanburg—Swimming Pool—City, J. F. Floyd, Mayor, will receive bids until Jan. 7 to construct reinforced concrete swimming pool; Harwood Beebe, Engr., Spartanburg.

Tex., Taylor—Swimming Pool—City will construct 75x150 ft. municipal swimming pool and bath houses, concrete construction; estimated cost \$18,500; Giesecke & Harris, Archts., Littlefield Bldg., Austin, Tex.

Miscellaneous Enterprises

Ala., Tuscaloosa—Perry Creamery Co. let contract to O. T. Cole for the erection of creamery plant on 4th St.

D. C., Washington—Edward H. Jones & Co., capital \$25,000, incorporated by Edward H. Jones, Wm. L. Oren, Jr. and others.

Fla., Jacksonville—Bennett Hat Co., Inc., A. L. Bennett, Pres., has under construction 1-story plant, steel frame structure, covered with corrugated iron, cement floors, will manufacture hats; when installation is completed daily output is estimated from 75 to 80 hats.

Ky., Louisville—Liberty Print Shop, capital \$15,000, incorporated by Adam Spahn, A. J. Hanke and others.

Ky., Louisville—Biblical Novelty Co., incorporated by J. B. Quinn, D. B. G. Rose and others.

Ky., Louisville—Ewing Butter Co., capital \$10,000, incorporated by C. Oscar Ewing, C. H. Neel and others.

Ky., Louisville—Castlewood Dahlia Farm, capital \$18,000, incorporated by J. S. Miller, N. C. Strange and others.

Ky., Paducah—Shelton Brothers, capital \$75,000, incorporated by Geo., Howard E. and Russel Shelton.

La., New Iberia—Loreauville Sugar Co., will rebuild Vida sugar refinery destroyed by explosion; capacity of plant to be 650 tons daily.

Md., Baltimore—V. F. F. Manufacturing Co., 3401 Alto Ave., capital \$10,000, incorporated by Eugene Stump, Benj. Frank and others; to manufacture parking and stop lamps, etc.

Md., Baltimore—Melvin, Simmons, Ward, Inc., 207 Manufacturers Bldg., capital \$10,000, incorporated by Harry E. Melvin, Herschel K. Simmons and others.

Md., Baltimore—Calvert Engineering Co., 1209 Calvert Bldg., capital \$25,000, incorporated by Henry Mann, Geo. Goebel and others; to manufacture timing brushes used in connection with engines.

Md., Baltimore—Dueber-Hampden, Inc., Calvert Bldg., incorporated by Frank W. Morrow, Sheldon M. Monroe and others.

Md., Baltimore—Sprague & Sprague, Inc., 17 Guilford Ave., capital \$50000, incorporated by L. Harry Sprague, Wm. C. Rogers and others.

Md., Baltimore—Cedarcroft Maintenance Corp., 417 Cedarcroft Rd., incorporated by Edward L. Hickman, John Henry Skeen and others.

Md., Baltimore—Ideal Storage Batteries, Inc., 3 South Central Ave., chartered by Franklin C. Austin, Geo. Ward and others.

Md., Baltimore—Independent Dry Cleaning & Dyeing Co., Edmondson Ave. near Winters Lane, capital \$50,000, incorporated by August C. Shipley, Edward L. Block and others.

Md., Baltimore—Quaker City Dairies, Calvert Bldg., capital \$50,000, incorporated by Jos. P. Murray, F. Stanley Saurman and others.

Md., Baltimore—Rolmonica Manufacturing Co., 1215 W. Saratoga St., incorporated by Edward Gross, Charles H. Spence and others.

Md., Baltimore—American Securities Corp., 1217 Munsey Bldg., incorporated by J. Leiper Winslow, Heyward Taylor and others.

Md., Baltimore—National Shade Co., 911 N. Fulton Ave., incorporated by Howard T. Ford, Lee E. Foley and others.

Md., Baltimore—Studio—Walter K. Bachrach, Pres., Bachrach, Inc., has acquired two 3-story brick dwellings at 1007-9 Cathedral St., will remodel and erect 3-story brick addition in the rear; when finished the entire site of 42x134 ft. will be occupied by the buildings used by the finishing studios of the company.

Md., Baltimore—Superior Ice Cream Co., Henry F. Eckels, Props., acquired buildings northwest corner North Ave and Gay St.; will improve for ice cream plant.

Md., Baltimore—North America Trading & Import Co., 1008 Munsey Bldg., incorporated by Irving B., Harry C. Delcher and others.

Md., Baltimore—Baltimore Decolorizer Co.,

1403 Fidelity Bldg., capital \$25,000, incorporated by Harry A. Richards, Geo. O. Smith and others; to manufacture decolorizer for use in manufacture of glass.

Md., Baltimore—Summers Printing Co., 11 S. Eutaw St., capital \$50,000, incorporated by Clinton Summers, Edward S. Hutton and others.

Md., Baltimore—Forty-one Hundred Ten North Charles St., incorporated by Wm. Fonshill, Herbert L. Grymes and others.

Md., Baltimore—Art Film Exchange, 228 N. Gay St., capital \$50,000, incorporated by Joseph Robbins, Louis Tunick and others.

Md., Cumberland—Narrows Addition Water Co., incorporated by Wm. H. Cantz, Samuel J. Jenkins and others.

Md., Cumberland—Hendricks Hotel, incorporated by Michael D. Reinhart, John F. Smith and others.

Md., Ellicott City—Fire Fighting Equipment—Howard County Board of Commsn. and City Comsn. will expend \$10,500 on modern fire fighting equipment, purchase motorized combination wagon equipped with ladder, two 40-gal. chemical tanks, hose and devices to pump water from any source.

Md., Hagerstown—Eldridge Dairy Co., capital \$100,000, incorporated by Russell A. Eldridge, Milton H. Strite and others.

Md., Kensington—Rose Brothers Tile Co., capital \$100,000, incorporated by Chas. W. Weller, Kensington; Wm. M. Conrad, Washington, D. C. and others.

Md., Mount Rainier—Crawford-Spire Theatre Corp., chartered by Wm. Burton Spire Andrew A. Crawford and others.

Md., Oakland—United States Auto Twin Hooks & Chain Co., Chas. H. McIntire, Pres., will expend \$20,000, in erection of building during 1924, for manufacture of automobile tire chains and chain hooks; is receiving bids on electric welding machinery; address Jas. A. Sincell, Mgr. (Lately noted.)

Mo., Kansas City—Gate City Press, capital \$10,000, incorporated by S. Drexel Gilmer, Aora Minter and others.

Mo., Marshfield—J. A. Killiam will erect tomato canning plant at Hartsville Dunn and Cabool.

Mo., St. Louis—Orcutt Vacuum Systems Inc., incorporated by T. W. Orcutt, S. Lopez and others.

Mo., St. Louis—Sylvia Hat Frame Mfg. Co., capital \$10,000, incorporated by G. J. Peterman, W. R. Hopkins and others.

Mo., St. Louis—The Vogue Apparel Co., capital \$15,000, incorporated by Kenneth Montgomery, 5572 Enright Ave., R. Shad Bennet, 5267 Waterman Ave.; to take over Vogue Manufacturing Co. at 1200 Washington Ave.

Mo., St. Louis—Paramount Distributing Co., incorporated by V. L. Meyer, D. C. Allard and others.

Mo., Sedalia—Paxton Feed & Produce Co., capital \$15,000, incorporated by Frank E. Paxton, Sedalia; W. W. Elsner and others, Sweet Springs, Mo.

Mo., Springfield—Springfield Railway Equipment Co., capital \$50,000, incorporated by Geo. H. Hunter, J. W. Hughes and others.

Mo., Springfield—Schulz Baking Co., of Altus, Ohio, will establish plant.

N. C., Brevard—Pisgah Forest Extracts Corp., capital \$75,000, chartered by Charles E. Orr, Brevard; T. C. Cox, Jr., Asheville, and others.

N. C., Greensboro—North Carolina College acquired 250 acres on Friendship Rd. and will establish dairy; construction to begin after Jan. 1; will install new equipment.

N. C., New Bern—Denton Drug Co., capital \$60,000, incorporated by A. E. Denton, E. L. Denton and others, all of Greenville.

N. C., Weldon—Weldon Fruit & Produce Co., capital \$50,000, incorporated by S. B. Pierce, C. E. Willis and others.

N. C., Wilmington—American Molasses Co. has acquired tract of waterfront property and will erect plant for distribution of imported molasses for food and for manufacture into cattle-feed and into preparation for fighting boll weevil; plans are being prepared for plant; concrete storage tanks, total capacity of which will be about 1,000,000 gals.; one steel storage tank, approximately about 750,000 gal., erection of warehouse building and rebuilding of docks; Walter Clark, Contr., Wilmington.

Tenn., Nashville—Joseph H. Lackey, has acquired the Southern Literary Magazine, now published at Atlanta, will move publication to Nashville; Walter F. Coxe, to be Managing Editor; Joseph H. Lackey, Business Mgr.

Tex., Dallas—Morten Investment Co., will let contract about Jan. 1 to construct film exchange building at southeast corner of South Hardwood and Jackson Sts.; 2 stories and basement, 90x100 ft.; reinforced concrete, brick and tile, with foundation built to carry 3 additional floors; will install modern fire fighting equipment; individual high pressure water line, automatic sprinkler system, etc.; outside fire escapes; smoke tower staircase; special vaults; cost \$85,000; Finn & Dunn, Archts.

Tex., Dallas—John F. Morris Co., increased capital from \$100,000 to \$125,000.

Tex., Houston—Houston Amusement Park Inc., 912 Bankers Mortgage Bldg., A. Ingersoll, Pres. (lately noted to establish an amusement park), will erect following buildings: dance hall, 140x200 ft., cost \$40,000; scenic railway, 5200 ft. long, cost \$65,000; front gate entrance, \$6000; will expend about \$10,000 for motors and amusement park devices: Barden Electric Co., Houston, Tex., has electric contract; construction by day labor. (See Machinery Wanted—Amusement Park Devices; Bathing Caps and Suits, etc.)

Tex., Houston—Creamery, etc.—Rettig's of Houston, capital \$20,000, incorporated by Penn Rettig, E. A. Hester and others.

Tex., Lockhart—Lockhart Machine Supply Co., incorporated by L. P. Scheh, E. L. Williams and others.

Tex., San Antonio—Acme Shirt & Overall Co., increased capital from \$15,000 to \$30,000.

Tex., Taft—Cage Hardware & Furniture Co., increased capital from \$30,000 to \$40,000.

Tex., Waco—Star Laundry & Cleaners, Inc., capital \$30,000, incorporated by R. C. Buchanan, D. E. Stone and others. (Lately noted.)

Va., Hopewell—Virginia Cellulose Co., Inc., capital \$150,000, organized with James O. Heflin, Pres.; Minard Hamilton, Sec.; to take over Stamscott Co.

W. Va., Huntington—F. C. McColm Granite Co. let contract to John J. West Co. of Huntington, to erect 2-story, 30x150 ft. office building and display salesroom at 1214 3rd Ave.; red tapestry brick with granite trimmings; will install sand blast patented process for monumental engraving.

W. Va., Morgantown—Publishers Building Co., Kirk St., Chas. E. Hodges, Pres., will erect 68x103 ft. building for newspaper and job office; fireproof; Cole Bros., Contrs. addition.

Motor Cars, Garages, Tires, Etc.

Fla., Miami—Filling Station—The Shaw Co. will erect filling station on S. Miami Ave.

Ky., Williamsburg—Safety Motor Coach Co., incorporated by B. S. Edwards, S. B. Winchester and others.

Md., Baltimore—Garage—Geo. Esselman, 3225 Greenmount Ave., will erect 2-story, brick and steel garage building at 3313 Greenmount Ave., 152x244 ft., steel sash, slag roof, cost \$28,000; J. S. Downing, Archt., South Mt. Washington.

Md., Baltimore—Baltimore Commercial Body Corp., 920 S. Eutaw St., capital \$100,000, incorporated by Jesse B. K. Lee, Robert L. Waters and others.

Md., Oakland—United States Auto Twin Hooks & Chain Co., capital \$100,000, incorporated by Chas. N. McIntire, Lawrence K. Dixon and others.

Mo., Dexter—Carter Motor Co., capital \$20,000, incorporated by C. N. Carter, Dexter; C. L. Harrison of Cape Girardeau, Mo. and others.

Mo., Kansas City—Garage—A. J. Powell and O. Kessler, Owners and Archts., 318 Whittier St., let contract to W. C. Hartwig, 405 Commercial Bldg., to erect 1-story, 48x111-ft. garage building at 4150 Maryland Ave., tar and gravel roof, hot air heat.

Mo., Kansas City—Green Sales Co., Inc., 1701 W. 43rd St. (lately noted incorporated capital, \$10,000), organized with P. B. Green, Pres.-Mgr.; L. H. Streby, Sec.; C. W. Cummings, Treas. (See Machinery Wanted—Automobile Accessories, etc.)

N. C., Asheville—Carolina Motor Truck Co., capital \$25,000, incorporated by R. C. Lee, W. R. Candler and others.

N. C., Charlotte—The Flint Co., incorporated by Phil Alcott of Charlotte; J. E. Erwin of Morgantown and others.

N. C., Rockingham—Smith Bennett Chevrolet Co., capital \$50,000, incorporated by Townsend Smith, Rockingham; J. M. Muness, Ellerbe, and others.

Tenn., Knoxville—Weaver-Sallings-Mikels Co., will erect garage building on Commerce Ave. and Market St., 2-story, brick construction.

Tex., Fort Worth—Cleveland Sales Co., capital \$50,000, incorporated by F. L. Etier, R. H. Carnahan and others.

Tex., Georgetown—B. J. Smith of Corsicana, Tex., will erect drive in filling station and auto laundry at Main and 10th St.; brick, stucco and iron.

Tex., Lubbock—Royalty Motor Co., capital \$25,000, incorporated by W. W. Royalty, T. G. Hubbard and others.

Tex., Luling—Luling Motor Co., capital \$15,000, incorporated by Will C. Locke, H. L. Williams and others.

Tex., Marshall—Lee Hawley will erect garage; 2-story; brick; 90x135 ft.; cost \$25,000; C. C. Lancaster, Archt.; Moos & Sons, Contr.

Tex., Marshall—Smith Motors Co., Reuben Smith, Prop., will erect second story to garage building.

Va., Bedford—Bedford Tire & Rubber Co., Inc. (lately noted incorporated, capital \$1,000,000) organized with L. R. Gillis, Pres.; J. J. Scott, Sec.-Treas.; will erect 80x300-ft. fireproof building, estimated cost \$30,000; will install rubber manufacturing machinery, cost about \$70,000; daily output 1000 automobile tires; date of opening bids not set.

W. Va., Bluefield—Elkhorn Motor Co., will erect garage and salesroom in the Westfield

W. Va., Fairmont—Central Automobile Corp., let contract to Concrete Steel Bridge Co. of Clarksburg, W. Va., to erect building on Fairmont Ave. between 4th and 5th Sts.; 3 story, 100x120-ft., reinforced concrete construction; estimated cost \$75,000; service department will have capacity of 100 cars daily; install two elevators and all latest equipment.

Railway Shops, Terminals, Round-houses, Etc.

Tex., Wichita Falls—W. F. Traction Co., let contract to Chas. M. Bialkowski at \$21,400 to erect 100x40-ft. car barn, reinforced concrete, concrete floor and foundation, composition roofing; invites bids on six 11x15 rolling steel doors, address proposals to Vo-lecker & Dixon, Archts., 500 Morgan Bldg., Wichita Falls.

Road and Street Construction

Ala., Abbeville—State Highway Comm., Montgomery, plans building road from Abbeville to Houston County line, through Headland; John A. Rogers, Chmn Highway Comm.

Ala., Goodwater—Town and State Highway Dept., Montgomery, will receive bids in Jan. to grade and surface Main St. Address The Mayor.

Ala., Montgomery — City plans extending Day St., and paving Jeff Davis Ave., from Cleveland Ave. to Oak St., and Oak St. to Mill St.; W. A. Gunter, Jr., Mayor.

Ark., Blytheville—Mississippi County Commrs. let contract to E. E. Park, Okmulgee, Okla., at \$734,000 to surface last connecting link in Blytheville-Osceola-Memphis hard road; 20-ft. wide; 6-in. base and 2-in. Warrenite top; H. H. Hall Construction Co., East St. Louis, Ill., will do grading and concrete work. County Commrs. will furnish material for surfacing.

Ark., Pine Bluff—City plans paving 6th and 7th Aves. from Ohio to Wisconsin, and 8th Ave. from Utah to Wisconsin, and offset in Washington St. at intersection with 7th Ave. Address The Mayor.

Fla., Fort Lauderdale—Broward County, Everglades Dist., plans road building; will vote on \$50,000 bonds. Address County Commrs.

Fla., Miami—Paul M. Beacom, reported interested in plans for new boulevard and white way to connect Tamiami Trail with W. Flagler St.; extending from point near Orange Glade School and Grapeland Blvd., through Mr. Beacom's property, connecting it with Kenilworth Blvd.

Fla., Ocala—State Road Dept., Tallahassee, Fla., received low bid from Langston Construction Co., Sanford, Fla., at \$89,776.72, to lay lime rock base on 9 mi. graded road bed on Road No. 2, Marion County, completing road from Ocala to Lake County line; also received low bid from Florida Shell Rock Co., at \$56,760, to furnish material for rock base on 11 mi. Road No. 5, between Romeo and Dunnellon.

Fla., Pensacola—Details under Land Developments.

Fla., Punta Gorda—Charlotte County will receive bids until Dec. 31 to grade and construct drainage structures on 11 mi. State Highway No. 5, from Punta Gorda to Sarasota County line; plans, etc., from State Road Dept., Tallahassee, and Div. Engr., Lakeland, Fla.; J. T. Swinney, Chmn. Board of County Commrs. (Previous bids rejected.)

Fla., Sanford—City plans paving following streets: Sanford Ave. from Franklin to Guava; Palmetto from 15th to Central; both 24-ft. paving; Court from Palmetto to San-

ford, and Sanford from Court to 1st; both 40-ft. paving. Address City Comm.

Fla., Tampa—City plans municipal improvements as follows: Open 2 main streets in downtown section; purchase and improve Big Island, including building causeway between 2 islands and mainland; build 3 bridges, Cass St. and Platt St. at \$325,000 each, and Fortune St. at \$250,000; install sewers; build seawall and boulevard; construct incinerator; improve property for schooner dockage; purchase and improve parks and playgrounds; build market; fire stations; auditorium; will vote Feb. 12 on \$2,945,000 bonds; Chas. H. Brown, Mayor. (Lately noted.)

Fla., Tampa—Hillsborough County Board of Commrs., will receive bids until Dec. 28 to pave with 2½-in. asphalt block surface, and 4-in. lime rock base, following streets: Roosevelt St., 20,250 sq. yds.; San Pedro, 3960 sq. yds.; Obispo, 3871 sq. yds.; Grana, 5295 sq. yds.; Tacon, 3604 sq. yds.; San Juan, 1869 sq. yds.; Ferdinand, 3026 sq. yds.; Algoma, 552 sq. yds.; Dunwoodie, 552 sq. yds.; Ravislow, 552 sq. yds.; Agawam, 774 sq. yds.; Maidstone, 552 sq. yds.; plans, etc., from County Engr.; Chas. T. Friend, Chmn., of Comm.

Fla., Wauchula—Hardee County Commrs., plans building 15 roads, totaling 89 mi., including road through Wauchula, from Ona toward Highlands County line; 6-in. base of Ocala limestone; asphaltic concrete top surface; voted \$850,000 bonds; W. W. Beeson, Chmn.

Ga., Atlanta—City contemplates widening Forsyth Ave. to Boulevard, and extending from Boulevard to Druid Hills; Walter A. Sims, Mayor.

Ky., Pikeville—Pike County Fiscal Court let contracts for 2 roads as follows: Grade and drain 4½ mi. road up Peter Creek to Phelps, to Henry M. Waugh, Bluefield, W. Va.; 9 mi. road on Levisa Fork, from The Forks to Grapevine Creek, to Eagle Construction Co., Pikeville, to John A. Steele, Jr., Knoxville, Tenn., at \$22,980, to build 5 bridges across tributaries of Levisa, above The Forks; spanning Upper Pompey, Matts Creek, Hurricane, Johnnakin and Lower Pompey; to Campbell Construction Co., for substructure for 3 steel bridges on Raccoon Creek, between mouth of Burning Fork and Frozen.

Mo., Kansas City—Details under Bridges, Culverts, Viaducts.

Ky., Pineville—State Highway Comm., Frankfort, Ky., let contract to Peters & Co., Knoxville, Tenn., for 31 mi. concrete road between Middlesboro and Lexington.

La., Jonesboro—Louisiana Highway Comm., Reymond Bldg., Baton Rouge, La. plans building 2 highways as follows:

From Ruston to Columbia, via Chatham; Jonesboro-Eros-Monroe Highway; will vote Jan. 9 on \$250,000 bonds.

La., Opelousas—Louisiana Highway Comm., Reymond Bldg., Baton Rouge, will receive bids until Jan. 15 for 5.326 mi. gravel road on Opelousas-Ville Platte Highway, from Opelousas toward Ville Platte; St. Landry Parish, State Project No. 386-A; plans, etc., on file; J. M. Fournier, State Highway Engr.

La., Shreveport—City receives bids until Dec. 26 to pave following streets:

Luchini, from Allen to Pierre Aves.; Sumner, from Arkansas to Alabama Aves.; Kiber, from East College St. to Boulevard St.; plans, etc., from S. G. Wolfe, Sec.-Treas.

Md., Baltimore—Board of Public Improvements approved plans to open, widen and grade 2 avenues in Mt. Washington; Greeley from North to Smith, and Kelly from Western Run road to Falls road; Howard W. Jackson, Mayor.

Md., Cumberland—City will receive bids until Dec. 31 to grade 7 streets in Ridgedale Addition, as follows: Brown Ave. from Thompson Ave. to end; McKinley, from Greene to Ridge Terrace; Ridge Terrace, from McKinley to Wood; Ritchie Ave. from Patterson Ave. to Ridge Terrace; Wood St. from Patterson Ave. to Ridge Terrace; Thompson Ave. from Rose Hill to Brown Ave.; 23,500 cu. yds. excavation; plans, etc., from Ralph L. Rizer, City Engr.

Md., Frederick—Frederick County Commrs. plan improving lateral roads in County; contemplate \$300,000 bond issue.

Miss., Jackson—City plans grading certain streets, paving and laying sidewalks on new streets, and constructing sewers; voted \$250,000 bonds. Address The Mayor.

Miss., Vicksburg—City will receive bids until Jan. 21 for 80 additional blocks of street paving; estimated cost \$200,000. Address Mayor Hayes.

Missouri—State Highway Dept., Jefferson City, let contracts for 4 road projects as follows:

Atchison County, grade 2.426 mi. road from Tarkio to Fairfax, State Project Route 1, Sec. 6, to Geo. W. Condon, Omaha, Neb., at \$12,935.56; De Kalb County, grade 5 mi. road between Sec. 14 and 15, Township 59, Range 31, Camden Township, State Project Route 31, Sec. 3; to M. E. Gillioz, Monett, Mo.; Howell County, 2 sections from Mountain View, West to Muskogee Construction Co., 805 Mid-Continent Bldg., Tulsa, Okla.; grade 4.754 mi. State Project Route 16, Sec. 52, at \$20,680; grade 4.811 mi., State Project Route 16, Sec. 53, at \$15,216.66.

Mo., Excelsior Springs—City plans paving various streets, including Broadway from Wyman to Saratoga, and Marietta from Broadway to South St.; Address City Mgr. Parsons.

Mo., Hartville—State Highway Dept., Jefferson City, will let contract soon for road from Mountain Grove to Springfield.

Mo., St. Louis—Board of Public Service receives bids until Dec. 26 to rebuild Laclede Ave. from Lessingwell to Grand.

N. C., Biltmore — Buncombe County Commrs., Asheville, and State Highway Comm., Raleigh, plan building sidewalk up Biltmore Hill, from bottom of incline to Biltmore High School; County to furnish gravel and cinders; Commission to do grading and furnish labor. Address County Commrs.

N. C., Fayetteville—City let contract to P. J. McGuire, Norfolk, Va., at \$300,000, for 75,000 sq. yds. street paving; 30 per cent sheet asphalt, and 70 per cent Warrenite bituminous.

N. C., Greensboro—Details under Land Developments.

N. C., Pittsboro—Chatham County will let contract in Jan. to complete hard surfaced road from Lee County line to Sanford, being final section of Pittsboro-Sanford link in National Highway, Route No. 75. Address County Commrs.

N. C., Winston-Salem—Details under Bridges, Culverts, Viaducts.

Oklahoma—State plans completing hard surfaced roads; contemplates voting early in 1924 on \$75,000,000 bonds. Address State Highway Dept., Oklahoma City.

Okl., Cushing—Details under Land Developments.

Okl., McAlester—Pittsburg County plans hard surfacing 2 roads as follows: 8 mi. from McAlester east on Postal Highway to Latimer County line; 16 mi. from Kiowa on

Jefferson Highway through McAlester to Coal Creek Bridge. Address County Comms.

Okla., Oklahoma City—City plans paving in 7 districts as follows: 7th St. from Indiana to Virginia Aves.; Ave. D, between Lee and Shartel; Shartel from Ave. D to point 230 ft. south; 12th St. from Ellison Ave. to block 15 Summers Place; Klein St. from 2nd to 4th Sts.; Western Ave. from 34th to 36th Sts., and from 36th to 50th Sts.; Pottawatomie St., between Walker and Hudson Sts.; 3rd St., Phillips and Kelly Aves., and north and south alley in Tools sub-division. Address The Mayor.

S. C., Spartanburg—City plans various improvements, as follows: Widen Elm St. to 60 ft. and extend from N. Church to Golding Sts.; build street parallel to Main St. on south side; pave W. Main St.; also plans installing sewerage system on west side of city; \$500,000 bond issue available; Harwood Beebe, Engr.

S. C., Spartanburg—S. B. Ezell contemplates opening $\frac{1}{2}$ mi. paved street parallel to Connecticut Ave. from line on Otis Blvd. to point on Riverside Ave.

Tennessee—State Highway Dept., Nashville, Tenn., plans building 809.1 mi. roads in 15 counties, during 1924 as follows:

Federal Aid; Sullivan County 22.8 mi. 18-ft. composition from Kingsport to Bristol; Bradley County, 10 mi. 18-ft. gravel and dirt from Cleveland to Hamilton; McMinn County, 11 mi. 18-ft. composition, from Athens to Monroe County; Loudon County, 5.5 mi. 18-ft. gravel and dirt from Knox County to Lenoir City; Anderson County, 8 mi. 18-ft. gravel and dirt from Clinton to Knox County; Greene County, 12 mi. 18-ft. gravel and dirt from Greeneville to Washington County; Campbell County, 27 mi. 18-ft. gravel and slag from LaFollette to Jellico; Roane County, 13 mi. 18-ft. gravel and dirt from Kingston to Loudon County; Hamblen County, 13 mi. 18-ft. gravel and dirt from Morristown to Bull's Gap; Cocke County, 4 mi. 16-ft. gravel and dirt from Bridgeport Federal Aid Project 23; Anderson County, 11 mi. 18-ft. gravel and dirt from Clinton to Campbell County; State Aid; Blount County 8 mi. 18-ft. from Knox to Maryville, including Little River Bridge; Monroe County, 9 mi. 18-ft. composition from McMinn County to Loudon County; Jefferson County, 8 mi. 16-ft. composition from New Market to Knox County; Loudon County, 12 mi. 16-ft. composition from Lenoir City to Monroe County; Roane County, 3 mi. 16-ft. composition from Harriman, Federal Aid Project 85; Sullivan County, 5 mi. 12-ft. composition from Bluff City to Carter County; Cocke County, 2 bridges over French Broad River; J. G. Creveling, Jr., State Highway Engr.

Tex., Alice—Jim Wells County plans 2 road projects as follows: 83.3 mi. Laredo-Corpus Christi Highway, State Highway No. 12-B, from Duval County line to Nueces County line; estimated cost \$1,263,000; 65 mi. State Highway No. 12-A, from San Patricio County line to Brooks County line; estimated cost \$1,230,000; L. W. Scheide Mantel, County Engr.; R. R. Mullin, County Judge.

Tex., Alvin—City plans street improvement; will vote Jan. 12 on \$20,000 bonds; T. C. Edwards, Mayor.

Tex., Anderson—Grimes County, Road Dist. No. 3, plans road building; will vote Jan. 12 on \$200,000 bonds. Address R. M. West, County Judge.

Tex., Baird—Callahan County plans 2 road projects as follows: 33 mi. bituminous macadam on Bankhead Highway, from East-

land County line to Taylor County line, approximate cost \$562,000; 9.7 mi. from Mexia Creek to Eastland County line; estimated cost \$182,750; T. H. Webb, County Engr.; Victor B. Gilbert, County Judge.

Tex., Bay City—Matagorda County plans 4.85 mi. shell surfaced Matagorda road, from Bay City to Road Dist. No. 8 line; estimated cost \$39,000; E. N. Gustafson, County Engr.; W. C. McNab, County Judge.

Tex., Brady—McCulloch County will receive bids until Jan. 15 for 4.7 mi. gravel road, including concrete structures and loose rock excavation, etc., an State Highway No. 9, from San Saba River to Mason County line; E. A. Burrow, County Engr.; Evans J. Adkins, County Judge. (Lately noted.)

Tex., Cameron—Milam County, Rockdale Dist., plans 15 mi. highway; contemplates bond issue; Thorndale Dist. plans 13 mi. highway; contemplates bond issue; A. F. Mitchell, County Engr., Cameron.

Tex., Colorado—Mitchell County defeated \$650,000 bonds; J. C. Hall, County Judge. (Lately noted to vote.)

Tex., El Paso—City let contracts to El Paso Bitulithic Co., at \$2.12 per sq. yd., to lay light Warrenite bitulithic pavement, with concrete base, on Richmond St. between Copia and Russell Sts., and River St., between St. Vrain and Ange.

Tex., Dallas—Dallas County will receive bids until Jan. 10 for 1600 ft. concrete pavement near Mesquite; Chas. Gross, County Auditor.

Tex., Henderson—Rusk County let contract to R. M. Leath, Kilgore, Tex., at \$46,855.16 for 7.63 mi. gravel road on State Highway No. 64; State Aid Project No. 419.

Tex., Hereford—Deaf Smith County will grade, etc. 30,000 sq. yds. road east of Hereford; \$6000 available; work by day labor; W. M. Megerl, County Judge.

Tex., Hillsboro—City, Street Improvement Dist. No. 1, will pave 4 blocks; voted \$15,000 bonds. Address The Mayor.

Tex., Karnes City—Karnes County, Road Dist. No. 3, plans highway improvements; voted \$125,000 bonds; D. O. Klingeman, County Judge.

Tex., Liberty—Liberty County plans 16.5 mi. State Highway No. 35, from Cleveland to Trinity County line; estimated cost \$147,000; W. C. Youngs, County Engr.; C. R. Wilson, County Judge.

Tex., Linden—Cass County, defeated \$1,500,000 bonds; Sam L. Henderson, County Judge. (Lately noted to vote.)

Tex., McKinney—Collin County let contract to Tibbets Construction Co., Fort Worth, at \$250,000, for 6.19 mi. reinforced concrete road north and south of McKinney.

Tex., Robert Lee—Coke County will receive bids until Jan. 3 to grade and construct drainage structures on 11.474 mi. road from Robert Lee to Bronte; E. J. Stockton, County Judge, Robert Lee; J. E. Beavers, County Engr., Bronte.

Tex., San Antonio—City receives bids until Dec. 24 to pave on bitulithic or asphalt rock base, 3 streets as follows: Marshall, Broadway and West Elsmere Place; also concrete curbs where curbs are unsatisfactory; plans, etc., from City Engr.; John W. Tobin, Mayor.

Tex., Seymour—Baylor County plans building 4 hard surfaced roads, totalling over 90 mi., into Seymour; will vote Dec. 28 on \$500,000 bonds; Ernest Tibbetts, County Judge. (Lately noted.)

Tex., Waco—City plans grading sidewalks on Herring Ave. from 20th to 23rd; 23rd from Bosque to Sanger; N. 25th from Sanger to Bosque. Address The Mayor.

Tex., Wichita Falls—Wichita County plans 7.43 mi. 18-ft. concrete pavement, Bates section, State Highway No. 30; estimated cost \$263,000; J. M. Isbell, County Engr.; D. B. Sartin, County Judge.

Tex., Wichita Falls—Wichita County let contract to J. E. Ward & Co., Dallas, at \$74,135.59 for 2 sections road north of Electra, as follows:

5 mi. toward toll bridge crossing Red River; 2 mi. eastward to Enterprise School; 10-in. gravel base; 1-in. asphalt and rock surfacing.

W. Va., Bluefield—City plans paving 34 streets and re-paving 6 streets, including Fulton, Carroll, Pearl, Stowers, Cherry, 4th, Augusta Sts., and Bluefield, Princeton and College Aves. Address City Mgr. Ridley.

W. Va., Charleston—Kanawha County, Union Dist., plans improving 5 roads in Dist. and voted \$220,000 bonds for follow-ing:

From end of present hard road in Dunbar to road running through Dunbar and with road to Institute and Satte; also bridge across Tyler's Creek, \$100,000; 3 mi. from foot of Big Tyler Mountain toward Cross Lanes, \$35,000; improve and build 3 mi. road from Sissonville road to mouth of Martin's branch, \$35,000; build and im-prove 1 mi. from Sissonville up Two Mile Creek, \$25,000; 1 1-4 mi. road from intersection of Sissonville and Wolf Pen roads up Wolf Pen, \$25,000; R. N. Moulton, County Clk.

W. Va., Wayne—Wayne County let contract to Billups & Wellman, Huntington, at \$39,500, to grade and drain 4 mi. road from Kenova, along Happy Hollow Route, towards Wayne.

Sewer Construction

Fla., Tampa—Details under Road and Street Construction.

Miss., Jackson—City voted \$250,000 bonds for sewers and streets. Address The Mayor. (Lately noted.)

Mo., Chillicothe—City Auditor Jewell Miller will receive bids until Jan. 5 for construction of sewer in Sewer Dist. No. 1.

Mo., Greenfield—City let contract to McCoy Construction Co., of Emporia, Kan., for construction of sewer system.

N. C., Conover—Details under Water Works.

N. C., Greensboro—Details under Land Developments.

N. C., Laurinburg—City let contracts for the following work: to Tucker & Laxton, Charlotte, N. C., for pumping station, reservoir and filtration plant at about \$148,000; to Thos. D. Nolen, of Detroit, at \$39,000 for sewerage extension; to Carolina Willys Light Co., Laurinburg, at \$4150 for electric transmission line; H. W. Malloy, Mayor. (Lately noted.)

N. C., Winston-Salem—Details under Road and Street Construction.

S. C., Spartanburg—Details under Road and Street Construction.

Tenn., McKenzie—City, H. C. Bryant, Clk., will receive bids until Jan. 3 for construction of vitrified pipe sewer system and settling tank; approximate quantities are as follows: 38,596 lin. ft. of 8-in., 4620 lin. ft. of 10-in., 900 lin. ft. of 12-in., and 1650 ft. of 15-in. sewers; 134 manholes; 12 flush tanks; 588 lin. ft. of vertical risers; 2 reinforced concrete settling tanks; B. H. Klyce, Engr., 506 Fourth and First National Bank Bldg., Nashville; city lately noted selling \$85,000 bonds to J. W. Jakes & Co., 307 Union St., and Caldwell & Co., 214 Union St., Nashville, Tenn., at \$86,000.

Tex., Dallas—R. J. Estep has contract for constructing sewer in Rick and Hurt addition on N. Fitzhugh St.; Myers & Noyes, Engrs. in charge.

Tex., Floydada—City votes Jan. 22 on \$60,000 bonds for construction and installation of sewer system; will also expend \$10,000 for enlargement of water works system. Address The Mayor.

Tex., Houston—City will soon call for bids for construction of Southmore storm sewer; estimated cost \$150,000; J. C. McVea, City Engr.

Tex., Kerrville—City voted \$78,000 bonds for constructing sewer disposal plant and sewer extension; Municipal Engineering Co., Engrs., 715 Praetorian Bldg., Dallas, Tex.; will soon call for bids. (Lately noted.)

Tex., Waco—City, Ben C. Richards, Mayor, votes Dec. 29 on \$75,000 bonds for extending sanitary sewers and \$350,000 bonds for constructing sewage disposal plant and repairs of sewers.

W. Va., Bluefield—City, Clarence E. Ridley, Mgr., let the following contracts for sewer work: To Pace Construction Co. of Roanoke, Va., for ditching; Charles A. Haggerty of Webster, Mass., for construction of concrete box culverts; to J. R. Vaughan & Co., of Roanoke, Va., for construction of storm and sanitary sewers. (Lately noted.)

Telephone Systems

Ala., Mobile—Southern Bell Telephone, main office Atlanta, Ga., will expend approximately \$100,000 for new cables to expand the telephone service during 1924; H. M. Stanfill, local Mgr.

Mo., St. Louis—Southwestern Bell Telephone Co., E. D. Nims, Pres., reported to have acquired the remaining portion of the block bounded by Tenth, Eleventh, Pine and Chestnut Sts., and will erect automatic exchange building at cost of \$3,250,000 on the Chestnut Street front and also plans office building on the Pine Street front costing \$3,500,000; the first building to be erected will be 7 stories and house the machine switching unit which will take over the down town exchanges, cost of building approximately \$750,000 and equipment about \$2,500,000; work to start in January; the second building will be for the administrative forces; the remainder of the site will be used for a building to house additional machine switching units. Wire from E. D. Nims states: Have not made any plans or decided upon dimensions or cost of buildings to be constructed on property. We have just purchased; will give information when possible, but will be some time before they are prepared.

Tenn., Alcoa—People's Telephone & Telegraph Co., granted franchise to place telephone system in city.

Textile Mills

Ky., Louisville—American Woolen Co., of Kentucky, 1000 E. Oak St., subsidiary of American Woolen Co., of Massachusetts, will erect 4-story addition to present plant; cost \$150,000.

N. C., Gastonia—Loray Mills, local branch of Manville-Jencks Spinning Co., of Pawtucket, R. I. reported to have let contract to Aberthaw-Construction Co., of Boston, Mass., for addition to mills; 1-story; approximately 25,000 sq. ft.; 200 broad looms.

S. C., Landrum—Blue Ridge Mills, formed by merger of Blue Ridge Hosiery Mill and R. L. Lee & Co. damask mill; J. S. Carpenter, Pres.; Roy P. Whitehead, Sec.; capital increased to \$150,000; will probably erect yarn mill. (Lately noted.)

Tenn., Cleveland—Cleveland Woolen Mills has plans for erection of 4-story addition to plant, 60x150 ft., also for dye house 60x200 ft.

Water Works

Ala., Birmingham—Birmingham Water Works Co. increased capital by \$5,000,000 and authorized issuance of \$500,000 preferred stock to cover waterworks improvements during 1924. (Lately noted.)

Ala., Montgomery—Alabama Water Co. will extend water mains into Hueytown, Dolomite, and Wilkes in Jefferson County; will probably sell \$175,000 bonds.

Fla., Orlando—City voted \$525,000 bonds for water and light improvements. Address The Mayor. (Lately noted.)

Fla., Sanford—City will vote Jan. 11 on \$345,000 bonds to include the following: \$375,000 for water works; \$310,000 for electric light plant and \$160,000 for gas plant. Address The Mayor. (Lately noted.)

Mo., Greenfield—City let contract to McCoy Construction Co. of Emporia, Kan., for water works improvements, to include surface reservoir with capacity of 80,000 gals.

Mo., St. Louis—Board of Public Service, Edward E. Wall, Water Commr., 312 City Hall, will expend \$12,000,000 (bonds previously noted voted) on water works construction; plans have not yet been completed; contracts will be let for different parts of work from time to time so that plant may be built in proper sequence; first installation will be 100 gals. daily, ultimate capacity 200 m.g.d.; work includes 200 m.g.d. storage reservoir, 15 miles of 60-in. steel mains, filters 200 m.g.d. capacity, etc.; will probably install triple expansion engines.

N. C., Conover—City, C. R. Brady, Mayor, receives bids until Jan. 10 for construction of water supply and sewerage system; work consists of construction of water supply line from Newton, N. C., to Conover and a distribution system; also a sewerage system of approximately 4 mi. of sanitary sewers varying in diam. from 6 to 10-in., with all necessary appurtenances; Spoon & Lewis, Engrs., 407 American Bank Bldg., Greensboro, N. C.

N. C., Greensboro—Details under Land Developments.

Tenn., Chattanooga—Jo. Anderson reported interested in constructing pipe line from Mabbitt Spring on Walden's Ridge, to city.

Tenn., Coal Creek—City will construct water works plant; reinforced concrete reservoir with capacity of 75,000 gals.; piping, fireplugs, expend \$300,00; N. B. Hodskin, Engr. (See Machinery Wanted—Water Works Equipment.)

Tex., Austin—City, W. D. Yett, Mayor, has had designs prepared by John B. Hawley, Cons'l. Engr., for proposed new plant to consist of enlargement of present settling tank, construction of modern dosing tank, equipped with machinery to automatically control application of lime and other ingredients, clear well of sufficient capacity, filtration beds, galleries and equipment for supplying of 7,500,000 to 10,000,000 gals. of soft water every 24 hours; water will be taken from combined flow of Barton Creek and Colorado River; total construction of filtration plant including fireproof pump house with modern machinery, \$300,000. (Lately noted as having voted \$450,000 bonds.)

Tex., Brenham—City will probably vote on bonds for water works improvements. Address The Mayor.

Tex., Floydada—Details under Sewer Construction.

Tex., Malone—City voted \$40,000 bonds for

water works improvements. Address A. J. Pyburn, Mayor. (Lately noted.)

Va., Charlottesville—City, Boyd A. Bennett, Mgr., receives bids until Jan. 19 to construct approximately 12 miles of 18-in. cast iron pipe line and 700 lin. ft. of 4x6 tunnel, a diversion dam, grit chamber and regulating works; pipe and specials will be furnished by the city, f.o.b. cars; plans, etc., at offices Fuller & McClintock, Engrs., 170 Broadway, New York, and Lee H. Williamson, National Bank Bldg., Charlottesville, Va.

W. Va., Fairmont—City, J. Clyde Morris, Director, opens bids Jan. 26 for construction of \$125,000 water filtration plant. (Lately noted.)

W. Va., Keyser—City, E. V. Romig, Mayor, let contract to Pfhl & Miller, at \$161,500 for filtration plant, including grading and concrete work for filter plant and pump station, cost \$35,000; sub-structure of pump station and filter plant, cost \$18,200; booster pump station, tank fittings and lot grading, \$84,000; piping, \$3200; to M. L. Bayard & Co., at \$33,000 for filter equipment; to Chicago Bridge & Iron Co., Chicago, Ill., at \$12,425 for steel reservoir tank, and at \$9925 for elevated tank; also let other contracts to H. C. Brooks Co., Martinsburg, Fairbanks, Morse & Co., Chicago, and Franklin Electrical Construction Co. (Lately noted.)

Woodworking Plants

Ala., Mobile—Burton Box Co., incorporated by W. B. Burton, Ward Williams and others.

Fla., Tampa—Florida Realty & Mortgage Co., W. F. Miller, Pres., reported to have acquired 360,000 acres or 589 sq. mi. of hardwood timber land from Charles D. Haines, of Altamont Springs, Fla., in the Republic of Santo Domingo, will develop and ship its products to Port of Tampa, contemplates incorporating with capital of \$2,000,000; will establish plant in Tampa for the manufacture of furniture.

Ky., Lothair—Ideal Furniture Co., capital \$15,000, incorporated by M. E. French, Williard Dale and others.

Md., Baltimore—Furniture—Potthast Brothers, Inc., 920 N. Charles St., capital \$50,000, incorporated by Wm. Potthast, John Potthast and others.

Mo., St. Louis—Nu Way Barrel & Machinery Co., capital \$50,000, incorporated by Wm. F. Ebert, C. Brohammer, 1418 Syndicate Trust Bldg., and others.

Tenn., Cleveland—Cleveland Chair Co. contemplates plant improvements, increasing output one-third.

Tex., Houston—A. C. Jones Furniture Co., capital \$10,000, incorporated by A. C. Jones, E. F. Morrow and others.

Va., Newport News—Truck Bodies—Mason Manufacturing Co., Inc., capital \$60,000, chartered with Geo. T. Hardy, Pres.; Frank B. Hooper, Sec.-Treas.; Chas. F. Pitt, Mgr., will erect 2 story, 100x200-ft. brick building, and will complete installation of machinery by Jan. 24; will manufacture truck bodies and other kind of wood work.

FIRE DAMAGE

Ark., Charleston—A. N. Hill's residence near Effa, occupied by Allen Brotherton.

Ark., Corning—M. G. Hoffman's residence; loss \$15,000.

Ark., Little Rock—J. C. Cole Mercantile Co. and a filling station at Rose City, 3 mi. east of North Little Rock; loss about \$15,000.

Ark., Monticello — Monticello Orphan's Home; loss \$25,000.

Fla., Live Oak—Judge D. P. Dickert's residence, 112 Hamilton St., occupied by Mr. McDonald.

Ga., Columbus — Humes Music Co., occupying the basement and three floors of the Humes Bldg.; loss \$200,000.

Ga., Winder—Winder Oil Mill; loss \$10,000.

Ky., Lexington—Midway High and Grammar School; loss over \$50,000.

La., New Orleans—Rice Levy & Co.'s 3-story brick building on Powdres St.; loss \$55,000.

Md., Frederick—Chas. W. Harshman's out-buildings on farm near Wolfsville, 15 mi. west of Frederick; total loss \$15,000.

Miss., Ruleville—R. R. Green's residence; loss \$35,000, including furniture.

N. C., Charlotte—Smith-Wadsworth Hdwe. Co., owned by P. M. Brown estate; loss \$250,000; Belk Bros.: 4-story structure, loss \$50,000; H. C. Long and La Mode stores, Sosnik & Sosnik, Proprietors, Winston-Salem, loss of stock about \$25,000; Mrs. W. I. Henderson, 3-story structure, loss \$25,000; total loss between \$500,000 and \$800,000.

N. C., Elizabeth City—Ideal Hosiery Co.'s mills on Poindexter St.

N. C., Norwood—Stinson Furniture Co.; loss between \$20,000 to \$25,000.

Tenn., Chattanooga—M. H. Silverman's property at 306-8-10 E. Ninth St., occupied by Prosperity Laundry, 2 confectionery stores and a shine parlor; loss \$15,000.

Tenn., Johnson City—Washington County Gas Co.'s plant loss \$15,000.

Tenn., Nashville—Tennessee Enamel Co.'s plant on Fortyeth St.; loss \$50,000.

Tenn., Nashville—Neale-Hutchinson Wholesale Grocery, 119-21 Second Ave., South; loss \$18,000; Arthur B. Ransom's residence, Belle Meade Blvd.; loss \$50,000.

Tenn., Oneida—Struck Hotel and several other buildings; loss above \$30,000.

Tex., Brady—Mayhew Produce Co.'s plant; loss not estimated.

Tex., Dallas—E. C. Palmer Paper Co.'s plant; loss \$150,000.

Tex., Houston—Capitol Theater, loss \$300,000; W. C. Munn Co. department store.

Tex., Sherman—Knights of Pythias' building.

Va., Chatham—Barker & Terry's building opposite depot; loss \$8000.

Va., Moneta—Morgan's Baptist Church near Moneta, Rev. S. B. Moses, Pastor.

Va., Norfolk—Naval Base Cafe, Sea Ark Clothing Co. and the Naval Base Tailor Shop; loss between \$10,000 and \$30,000.

Va., Occoquan—Ebenezer Baptist Church, address The Pastor; Odd Fellows Hall; Joseph Simms' barber shop; J. L. Dawson's combination stable and garage; total loss \$12,000.

Damaged by Explosion.

La., New Iberia—Vida Sugar Refinery owned by Loreauville Sugar Co.

Ark., Monette—Kohn's Dry Good store, loss \$8000; Joe Wallace's grocery store, loss \$4000.

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

Ark., Pine Bluff—Sahara Temple, A. A. O. N. M. S., is considering erecting new temple instead of remodeling present structure lately noted damaged by explosion; Mitchell Selligman, Archt., Pine Bluff, is preparing plans for both projects.

Ga., Atlanta—Salvation Army, Capt. Chas. Anderson, officer in charge, will probably let contract within several days for remodeling old Bethel building, Adams Ave. and Lauderdale St., for workshop and home.

La., Baton Rouge—Shattuck & Layer, Archts., 19 S. LaSalle St., Chicago, Ill., advise general contract for construction of Young Men's Christian Assn. building, R. B. Taylor, Pres., Roumain Bldg., Baton Rouge, should be awarded in next 2 weeks. (Lately noted bids opened Dec. 14.)

La., Jeanerette—Jeanerette Lodge No. 255, A. F. & A. M., D. F. Jeffrey, Jr., will open bids about Jan. 1 for erection of brick lodge building; 2 stories, 36x70 ft., concrete, wood and tile floors, steam heat; cost about \$20,000 with plumbing, steam heating and lighting; Sam Stone, Jr., Archt., New Orleans, La. (Previously noted.)

Md., Baltimore—Knights of Columbus, Wm. S. Aumen, Jr., Pres., is having preliminary plans prepared by Geo. R. Callis, Jr., 611 American Bldg., Baltimore, for erection of \$1,000,000 clubhouse, Madison and Cathedral Sts.; plans call for 184x150-ft. fireproof building, 6 stories, concrete, oak and tile floors, slab roof, concrete foundation, hollow and interior tile, metal ceilings and doors, vaults, vault lights, ventilators, ornamental terra cotta, steel sash and trim, wire glass, vacuum modulation system of heat, electric wiring and fixtures, 2 traction type elevators, swimming pool and baths. (Lately noted.)

Okl., Enid—Young Men's Christian Assn., Hi Lee, member of State Comm., plans to erect \$250,000 4-story building.

Okl., Sapulpa—Knights of Pythias and Benevolent Order of Odd Fellows are considering erection of \$100,000 joint building to include lodge rooms and city auditorium.

Bank and Office

Ga., Albany—Mrs. B. B. Williams is having plans prepared for \$100,000 office building.

Fla., Daytona—R. L. Selden is president of syndicate to erect an office building on old Bennett property adjoining post office; site 80x140 ft.; 7, 8 or 9 stories, fireproof construction; stores on first floors, offices on second and third and remaining floors for hotel; J. J. Baldwin, Archt., Anderson, S. C., and Gaffney, S. C.; to be ready for bids by Feb. 1. (Lately noted.)

Ky., Louisville—Federal Reserve Bank has permit for erection of \$35,000 addition at 132 S. 5th St.

Mo., St. Louis—Southwestern Bell Telephone Co., E. D. Nims, Pres., St. Louis, purchased remainder of block bounded by 10th, 11th, Chestnut and Pine Sts., for erection of number of buildings, first to be \$750,000 machine switching unit, equipment to cost \$2,500,000; second structure will be \$3,500,000 office building to house administrative offices; will probably be 20 stories and accommodate 1500; Mr. Nims wires Manufacturers Record: "Have not yet made any

plans or decided upon dimensions or cost of buildings to be constructed on property we have just purchased. I will be glad to give you those when they are ready, but it will be some time before they are prepared."

S. C., Allendale—Bank of Allendale is receiving bids for erection of 2-story building; J. H. Sims, Archt., Columbia, S. C.

W. Va., Parkersburg—W. H. Dawkins, Ashland, Ky., states he has no plans at present time for erection of office and business block at 7th and Avery Sts. as lately reported.

Churches

Ala., Albany—Decatur—Westminster Presbyterian Church, Rev. L. F. Goodwin, Pastor, plans to enlarge building.

Ga., Macon—Dunwody & Oliphant, Macon, architects for Sunday school building for First Presbyterian Church, advise structure will not be built at this time. (Lately noted.)

Mo., Houston—Baptist Church has plans for \$15,000 building; Henry Morgan, Chmn., Finance Comm.

N. C., Pinehurst—Hobart Upjohn, archt., Grand Central Terminal, New York City, Aaron G. Alexander, Mgr., advises Manufacturers Record plans for Pinehurst Church will be issued about first of year; building to be 140x56 ft., with spire 125 ft. above ground; brick with wood cornice and spire. (See McHy. Wanted—Brick (Hand Moulded.)

Okl., Picher—First Baptist Church has started construction of addition. Address The Pastor.

S. C., Sumter—Church of the Holy Comforter, Joseph Palmer, Sec., Bldg. Comm., advises, "We do not expect to let contract for our parish house until April"; building to be 2 stories, stucco on brick, 11 classrooms; Gaillard Walker, Archt., care of owner. (Previously noted.)

Tex., College Station—Baptist Congregation, Rev. R. L. Brown, Pastor, care Agricultural and Mechanical College, plans to erect church and parsonage.

Tex., Corpus Christi—Catholic Diocese of Corpus Christi, Rt. Rev. Emmanuel B. Ledvina, Bishop, plans to erect cathedral, N. Broadway and Lipan St.; renaissance type, 2 towers; will probably soon begin work on foundation.

Tex., Lufkin—Presbyterian Church, D. A. Singleton, Chmn., Bldg. Comm., will probably start construction of \$30,000 building in Jan.

Va., Fancy Gap—Dr. O. S. Thomas, Dayton, O., and Dr. J. O. Atkinson, care Elon College, Elon College, N. C., are interested in erection of mission church.

Va., Norfolk—Larchmont Methodist Church will probably start construction about Jan. 1 on 2 Colonial type Sunday school wings and remodeling present building; 2 stories; Calrow & Wren, Archts., Norfolk; plans to erect new church within 5 years.

Va., Richmond—Meade Memorial M. E. Church, Willis C. Pulliam, Chmn., Bldg. Comm., selected Carnieal & Johnston, Richmond, to prepare plans for English Gothic type, rock-faced granite building, Bainbridge St. and Cowardin Ave.; cost about \$70,000; 3 units consisting of main auditorium, parish house and rectory. (Lately noted.)

W. Va., Bluefield—Westminster Presbyterian Church, D. W. Hancock, Chmn. Bldg. Comm., will erect brick building; probable cost, \$75,000 to \$100,000; architect not selected. (Lately noted.)

City and County

Ala., Tuscaloosa—Almshouse—Tuscaloosa County Board of Revenue selected C. M. Ayres, Tuscaloosa, as architect for new \$15,000 almshouse, water and sewerage system, on Hargrave Rd., about 4½ mi. from Tuscaloosa.

Fla., Bartow—Municipal Auditorium—City, R. B. Huffaker, Mayor Commr., will erect municipal auditorium on high school grounds.

Fla., Daytona—Fire Station—City, W. B. Hedger, Mayor, plans to let contract in Jan. for erection of \$10,000 fire station; Jacob Espedahl, Archt.-Supervising Engr., Daytona. (Lately noted.)

Fla., Sanford—City Hall-Auditorium—City, Mr. Lake, Mayor, plans to call \$75,000 bond election for 2-story city hall and auditorium.

Fla., Tampa—Auditorium, Market, Fire Stations—City, Major Jas. McCants, W. A. Adams, and others, Comms., will vote Feb. 12 on \$2,945,000 bonds, including bonds for auditorium, market and fire stations. (Previously noted.)

La., Monroe—Courthouse—Ouachita Parish Police Jury, Chas. W. Phillips, Pres., accepted plans by J. W. Smith, Monroe, for \$400,000 courthouse and will probably let contract during Feb. (Previously noted.)

Mo., Springfield—American Legion is interested in erection of \$100,000 memorial building.

N. C. Goldsboro—Memorial Building—City has plans out for community memorial building; cost about \$12,000; John David Gullet, Archt., Borden Bldg., Goldsboro.

Okla., Tulsa—Jail—City will have plans finished Jan. 1 for erection of cut stone, brick and concrete jail building, 4th and Elgin Sts.; 2 stories and basement, 44x88 ft. and 35x92 ft., terrazzo and concrete floors, concrete foundation, metal ceilings and doors, vaults, vault lights, ventilators, steel sash and trim, wire glass, built-up roof, steam heat; cost about \$100,000; F. A. Dugan, Archt., 202 Castle Bldg., Tulsa. (Lately noted.)

Tenn., Greenfield—City Hall—City is considering erection of \$20,000 city hall to provide offices, auditorium, gymnasium, club room, library, etc. Address The Mayor.

Tex., Houston—City Auditorium—City, O. F. Holcombe, Mayor, will issue \$100,000 in bonds for improvement of city auditorium.

Tex., Houston—Library—City, Rev. Harris Masterson, Chmn., Library Board Bldg. Comm., will probably ask for bids early in 1924 on right wing of \$750,000 structure; McKinney and Bagby Sts.; cost \$200,000; stucco, with stone trim, tile roof; Wm. Ward Watkin and J. M. Glover, Archts., Houston; Cram & Ferguson, Consrt. Archts., 15 Beacon St., Boston, Mass. (Previously noted.)

Tex., Marshall—Jail—Harrison County plans to erect jail. Address County Comms.

Tex., Rockdale—City Hall—City Council is considering plans to remodel city hall. Address The Mayor.

Dwellings

Ark., Pine Bluff—Geo. Ross, DeWitt, Ark., purchased 20-acre tract on Sheridan Pike and will start construction of residence first week in Jan.

Fla., Eustis—Herman Duree will erect residence in Ocklawaha sub-division.

Fla., Eustis—E. Russell Lum purchased 2 lots in Ocklawaha sub-division and is reported to build soon.

Fla., Jacksonville—Horace J. Flack will erect 2-story, 5-room hollow tile and stucco residence, Hedrick Ave. and Van Wert St., Buena Vista; Span'ish type; sleeping porch; Jefferson D. Powell, Archt., Jacksonville.

Md., Baltimore—Herfer & Gottschalk plan to erect eighteen 2-story brick dwellings, S. E. cor. Garrison and Palmer Aves.; total cost about \$54,000.

Md., Baltimore—Lerch & Wood will erect seven 1½-story frame bungalows, S. W. and S. E. corners, Lerchwood and Rueckert Aves.; about 24x28x26 ft.; total cost \$50,000.

Md., Baltimore—Rullman Company will erect 3 frame bungalows, east side Chestnut Park Ave., south of Lake Ave.; total cost \$20,000; 28x28x25 ft., 1½ stories.

Md., Baltimore—Milburn Realty Co., 805 Lexington Bldg., acquired 600-ft. site on Eastern Ave. and will erect number of 2-story brick dwellings.

Md., Baltimore—Chas. H. Neighoff, Jr., 122 Church Ave., Violetville, Baltimore, will erect two 2-story frame dwellings, S. W. side Church Ave. near Whittemore Ave.; total cost \$10,000.

Md., Baltimore—Arthur Woolford, care of J. W. Woolford & Son, 2001-15 Aliceanna St., will erect \$16,000 residence, east side N. Charles St., south of Highfield St.; 3 stories, 38x36x30-ft., brick.

Mo., Columbia—Prof. Jas. T. Quarles, University of Missouri, will erect English type residence in spring; Elliott Mason, Archt., Columbia.

Mo., Springfield—Lee Patterson will erect residence in Zobeth addition.

Tenn., Memphis—Phillip Todhunter purchased 2 lots on Stonewall Place, University Park, and plans to erect dwellings within short time.

Tex., Dallas—H. T. Lackey will erect 12 4-room frame dwellings, 2702-46 Harding St.; total cost \$18,000.

Tex., San Antonio—Wm. H. Russell, Gunter Bldg., will let contract about Jan. 10 for erection of \$12,000 frame and stucco residence, McCullough St. and Woodlawn Ave.; 2 stories, 10 rooms, oak and edge grain pine floors, reinforced concrete foundation, shingle roof; Bert McNeil, Archt., 217 Garza St.; plans complete. (Lately noted.)

Tex., San Antonio—J. A. Kitchens, 414 Terrell Ave., will start construction of residence, Hays St. near New Braunfels St., after Jan. 1; frame and stucco.

Va., Richmond—Atlantic Construction Co. will erect 8 brick dwellings on Rosewood Ave. near Sheppard St.; total cost \$60,000.

Hospitals, Sanitariums, Etc.

Fla., Jacksonville—Duval County Tuberculosis Assn., Chas. H. Mann, Chmn., Seal Sale Comm., plans to establish convalescent home for crippled children with proceeds of Christmas seal sale.

Fla., Lakeland—United Brotherhood of Carpenters and Joiners of America, Wm. L. Hutcheson, Pres., plans erection of hospital in connection with home for disabled and aged members. (See Buildings Proposed—Miscellaneous.)

La., Shreveport—Drs. L. H. Pirkle and T. E. Williams purchased property, Virginia Ave. and Texas Rd., and will erect \$150,000 fireproof sanitarium; 4 stories, brick; plans being prepared.

S. C., Newberry—Chamber of Commerce, J. P. Moon, Sec., promoted organization of

Newberry County Hospital Assn., Geo. B. Cromer, Pres., for erection of \$50,000 hospital; details not yet determined. (Previously noted.)

Tenn., Memphis—Sanders-Warr Clinic, 20 S. Dunlap St., plans to erect \$20,000 second-story addition; patient's rooms and library with glassed-in bookshelves; E. L. Harrison, Archt., Memphis.

Tex., Marshall—Harrison County Medical Assn., is interested in erection of \$50,000 hospital.

Hotels and Apartments

Ala., Birmingham—Frank Nelson, Jr., has purchased northeast corner of Second Ave., North, and Twenty-first St. at about \$250,000; certain interests are reported to be negotiating for the site with new owner with a view to constructing a hotel.

Ark.-Tex., Texarkana—Apartment Hotel Co. has been organized and plan to erect 5-story apartment building, to contain 55 completely furnished apartments; semi-fireproof; mosaic bronze and Indiana limestone; 20 ft. drive will surround building; elevator; refrigerating plant; garage and storage room to accommodate 30 cars; contract will be let before first of year; Lambert De Koning, Archt., Texarkana, Tex.

Fla., Miami—County Judge W. Frank Blanton and Carl Homer, Jr., supervisor of registration, plan to erect 3-story building early in Spring on N. E. First Ave. between 7th and 8th Sts.; cost \$50,000; stores on first floor and hotel rooms on two upper floors.

Ky., Owensboro—W. E. Whitely contemplates erecting addition to hotel building on Union Station hotel site; when finished will be 2-story, 40-50 rooms, 60x140 ft., cost \$60,000; brick veneer with stone trimmings; will install cafeteria, cold storage plant; Harvey Allen, Mgr.

La., Shreveport—Mrs. Betty S. Youree will receive bids until Dec. 29 for erection of 4-story brick and concrete annex to Youree Hotel; cost \$300,000; 100x150 ft.; 100 rooms; face brick, stone trim, reinforced concrete frame, floor slabs, steam heat, freight and passenger elevators; terrazzo, marble and tile floors, metal windows and metal store fronts; Edw. F. Neild, Archt., 1206 Merchants Bldg., Shreveport. (Lately noted.)

Md., Cumberland—Wm. H. Cook, Johnstown, Pa., is reported to have taken option expiring April 1, 1924, on Fairview Hotel building and grounds, Front St. and Baltimore Ave.; Mr. Cook reported to represent Stottlers, of Johnstown, who with Westinghouse Electric Manufacturing Co. of Pittsburgh, are arranging to purchase entire block of which Fairview Hotel is a corner, for erection of 7-story, 300-room hotel; cost including properties \$2,000,000.

Mo., Sedalia—A. F. Ault of Kansas City, Mo., will remodel Meuschke Bldg. into a hotel.

N. C., Greensboro—Chamber of Commerce and Real Estate Board are backing campaign to raise \$400,000 for erection of an apartment house at S. E. Cor. Carolina Ave. and Second St.; 5 stories; 225x157 ft. (Lately noted.)

Tenn., Chattanooga—Sam R. Read will have new plans prepared for erection of 400-room hotel building to cost between \$2,500,000 and \$3,000,000; (Lately noted to erect \$1,000,000 hotel with 300 rooms; Holabird & Roche, Archts., 104 Michigan Ave., Chicago.)

Tenn., Memphis—J. Frazer Smith, Archt., has purchased lot on Granville Place for undisclosed client, and is preparing plans for

erection of 8-apartment building to cost \$35,000; 75x180 ft.; brick and stone construction, steam heat, tile roof, hardwood floors, built-in plumbing features, suites to contain 5 and 6 rooms each.

Tenn., Oneida—Struck Hotel, noted destroyed by fire, is reported to be rebuilt in immediate future.

Tex., Amherst—Stanley Watson, Mgr., of the Hassell farm lands will probably select architect first of year for erection of \$40,000 brick hotel. (Lately noted Peters & Haynes, Archts., Lubbock.)

Tex., Corsicana—G. A. McGregor, Dallas, has secured site opposite city hall, and contemplates erecting 5-story, 100-room hotel; cost \$300,000; brick and reinforced concrete. (Lately noted.)

Tex., Dallas—S. F. Davis will erect \$17,500 apartment house, 5211 Worth St.; 24 rooms, 8 suites; brick veneer.

Va., Wytheville—Chamber of Commerce reports that a 56-room hotel is contemplated; each room with circulating ice water, running water; 28 rooms will have private bath or shower.

Va., Yorktown—McKim, Mead & Mead, Archts., 101 Park Ave., New York City, advises that contract has not been awarded for erection 3-story hotel to cost \$2,000,000. (Lately awarded to Jno. T. Wilson Co., Richmond, Va.)

W. Va., Huntington—W. M. Meredith will erect 10-story hotel at Fourth Ave. and Seventh St., work to start in Spring and be completed in 1 year; 30x165 ft.; fireproof, steel and concrete floors; superstructures, steel with self-supporting steel frame and casements; foundation complete; 200 rooms each with bath; terra cotta and brick; first floor to be used for business; will contain lobby, mezzanine floor, conservatories, cafeteria, ball room, etc.; Levi J. Dean, Archt., Huntington; steel work will be fabricated and erected by Huntington Iron Works. (Lately noted.)

W. Va., Morgantown—Chas. E. McCray, Prop. Chaplane Hotel, Wheeling, W. Va., has purchased 7-story building and contemplates remodeling and converting into modern hotel.

W. Va., Welsh—Isadore Katzen is preparing plans for erection of 4-story brick building on McDowell St.; first floor will be store room and rest apartments.

Miscellaneous

Ala., Tuscaloosa—County farm—County Board of Revenue selected C. M. Ayres, Tuscaloosa, to prepare plans for erection of buildings on new county farm, 4 miles from Tuscaloosa on Hargrove Road; cost about \$15,000; plans include waterworks and sewerage system.

D. C., Washington—Bus Terminal—Chas. J. Columbus, Secy. Merchants & Manufacturers Assn., and others, are promoting erection of terminal station for bus lines.

Fla., Lakeland—Home—United Brotherhood of Carpenters and Joiners of America, Wm. L. Hutcheson, Pres., has purchased 1700 acres of land 2 miles northeast of Lakeland as site for its home for disabled and aged members; plans include bungalows, hospital and a community house; will expend between \$4,000,000 and \$5,000,000 on developing site.

Fla., Miami—Race Track—Miami Jockey Club, Tintum Bldg., A. J. Cleary, Pres. and Treas., has been organized with \$500,000 capital and has acquired 126 acres at Hialeah, for erection of oval race track, club house and concrete and steel grandstands to seat 7000 persons; club house will accommodate 500 persons; Spanish design with observation roof; preliminary plans by Harold H. Mundy, Miami.

Ky., Henderson—Country Club, B. W. Witt, Trustee, has purchased 47 acres of land and contemplates erection of a club house and a golf course.

La., New Orleans—Jno. L. Oster, Carondelet and Julia Sts. and Paul B. Habans, Secy. New Orleans Parish School Board, will have plans by E. A. Christy, New Orleans, for replacement of Delamore Market; cost \$25,000; frame stucco and brick.

Mo., Columbia—Alpha Gamma Rho Fraternity, directors of building association, plan erection of fraternity house.

Mo., Independence—Roy Johnson has purchased lot on East Lexington St. and will improve it with a building, nature not yet disclosed.

Mo., Springfield—Club House—Springfield State Teachers College, Clyde Hill, Pres., announces that plans are being prepared for erection of \$27,000 club house; 3 stories, with 40 rooms.

N. C., Charlotte—Club House—Charlotte Country Club, contemplates erecting \$125,000 club house and \$75,000 18-hole golf course; plans are under way for construction of pipe line to water 18 grass greens on present golf course at a cost of more than \$5000.

N. C., Kinston—Kinston Country Club, R. Allie Whitaker, Pres., announces that plans for proposed country club are nearing completion.

N. C., Thomasville—Orphanage—Thomasville Orphanage, M. L. Kesler, Gen. Mgr., has turned plans over to contractors for erection of two cottages for girls, one at Thomasville and one at Kennedy home.

S. C., Greenville—Home—Elders of the Church of Christ at Dallas are trustees for the 436 acres of land 5 miles south of Greenville, donated by W. F. Boles and wife, and contemplate erecting home for orphans, aged persons and others, at a minimum cost of \$10,000; work to start April 1 and be completed Dec. 31.

Tex., Brenham—Club house—Brenham Country Club, C. L. Wilkins, Pres., plans completing clubhouse on which work was started some time ago.

Tex., Houston—Park—Houston Amusement Park, Inc., is erecting dance hall and pavilion at 2202 Houston Ave., to cost \$40,000; also a dipper at same address to cost \$40,000.

Va., Seyer Pines (R. Sta. Richmond)—Speedway—D. B. Hill and L. W. Gillespie, Indianapolis, Ind., have purchased 1244 acres of land and are promoting erection of a motor speedway and stadium to seat 100,000; 400 acres will be used for speedway purposes and will be at least 1½ miles around.

W. Va., Philippi—Stadium—Broadus College plans erection of a stadium; Furman Nuss has made survey for structure.

Railway Stations, Sheds, Etc.

Ala., Hayden—Louisville & Nashville R. R. Co., W. H. Courtenay, Ch. Engr., Louisville, Ky., will erect depot on line between Cullman and Birmingham.

Ala., Sheffield—Louisville & Nashville R. R. Co., W. H. Courtenay, Ch. Engr., Louisville, Ky., contemplate making improvements to passenger station.

Ala., Union Springs—Central of Georgia Rwy. Co., C. K. Lawrence, Ch. Engr., Savannah, Ga., will make improvements to depot at early date.

N. C., Greensboro—Southern Rwy. Co., Henry W. Miller, Vice-Pres., has plans by Fellheimer & Wagner, 7 E. 42nd St., New York City, for erection of passenger station; cost not to exceed \$1,300,000, the amount of bonds voted; 270x90 ft.; 2 stories; second

floor will be used as offices by the railroad company. (Previously noted.)

Schools

Ala., Montgomery—County Board of Education plans erection of county high school building in Capitol Heights to accommodate students from vicinities of Chisholm, Mitylene, Delrida and adjacent communities; cost not less than \$100,000.

Ark., Little Rock—School Board, D. M. Armstrong, Supt., plans erection of high school; also establish athletic field.

Ark., Van Buren—Crawford County Board of Education, J. P. Bingham, Supt., plans to erect school building 2 miles south of Van Buren limits, to accommodate 100 children.

D. C., Washington—Geo. E. Wynne submitted lowest bid at \$469,700 for construction of an addition to Armstrong manual training school; Jarboe Elevator Co. submitted bid of \$3600 for installation of the elevators.

Fla., Daytona Beach—Volusia County School Board has plans by Hampton & Ehmann, Miami, for erection of grammar school building on Lenox and Grandview Sts.; Spanish design, 2 stories, 135-ft. frontage.

Fla., Gainesville—Board of Control, P. K. Yonge, Chmn., Aragon Hotel, Jacksonville, approved tentative plans for erection of library building at University of Florida and will let contract latter part of Jan. or first of Feb.; to be built in 4 units, completed building to cost \$500,000; first unit will be finished about Dec. 1, 1924, and cost \$100,000; 2 stories and contain reading rooms, offices, consultation room, etc. (Lately noted.)

Fla., Miami—Dade County School Board is reported to have purchased block 6 of Northern Blvd. between Thirty-first and Thirteenth Streets at Fifth Ave., for \$18,000 as a future site for a junior high school.

Fla., St. Augustine—State Board of Control, P. K. Yonge, Chmn., will receive bids until Jan. 14, at Manson House, St. Augustine, for completion of primary Cottage Building No. 2 on grounds of Florida School for the Deaf and the Blind; Drawings and specification may be seen at office of Edwards & Sayward, Archts., 609 Chamber of Commerce Bldg., Atlanta, Ga.; at office of the President of the Florida School for the Deaf and the Blind, St. Augustine; Builders' Exchange, Atlanta, Ga. and Master Builders' Assn., Jacksonville, Fla.

Ga., Albany—City of Albany and Dougherty County will each vote Jan. 21 on \$100,000 bond issue to erect \$200,000 school building for joint use of City and County; city will also vote on \$100,000 sewer bonds; address The Mayor.

Ga., Bartow—School Board will have plans by Lockwood & Poundstone, Forsyth Bldg., Atlanta, ready for contractors about Jan. 10; oak flooring, heating to be let separate from general contract, bond issue \$45,000.

Ga., Fitzgerald—Fitzgerald Board of Education and County Board of Education, are considering building a joint high school.

Ga., Wadley—Wadley School District voted \$55,000 bond issue for erecting school building and remodeling present building.

Ky., Louisville—DuPont Manual Training High School has raised \$52,378 towards the \$60,000 goal for erection of athletic stadium.

La., Baton Rouge—State Board of Education plans expenditure of \$1,712,000 in next 2 years for permanent building improvements at 6 state institutions; plans include: Louisiana Normal College, Natchitoches, Favrot & Livaudais, Archts., New Orleans, 1924-25, \$250,000; 1925-26, \$300,000; Southwest-

ern Louisiana Institute, Lafayette, Moise H. Goldstein, Archt., New Orleans, 1924-25, \$177,500; 1925-26, \$175,000; Louisiana School for Blind, New Orleans, Emile Weil, Archt., New Orleans, 1924-25, \$25,000; Louisiana Polytechnic Institute, Ruston, J. W. Smith, Archt., Monroe, 1924-25, \$300,000; 1925-26, \$175,000; Louisiana School for Deaf, New Orleans, no architect announced, 1924-25, \$85,000; 1925-26, \$85,000; Southern University, New Orleans, no architect announced, 1924-25, \$62,000; 1925-26, \$62,500; also appropriation of \$100,000 for establishing normal school for negroes.

La., Baton Rouge—Louisiana State University, R. L. Himes, Sec., Building Comm., will open bids Jan. 4 for installation of heating apparatus in the Campanile as per plans and specifications that may be had by applying to C. V. Link, Archt., Baton Rouge. (Lately noted.)

La., Bunkie—Avoyelles Parish School Board, Marksville, La., will open bids Jan. 9 for erection 2-story brick school building; cost \$125,000; brick and heavy joists; composition roof, wood and cement floors, low pressure steam heat, electric lights; Wm. T. Nolan, Archt., Canal-Commercial Bldg., New Orleans; following contractors have received plans and specifications: Caldwell Bros., 301 Perdida Bldg.; W. J. Quick, J. V. & R. T. Burkes, Carondelet Bldg., all New Orleans, La.; Chas. F. Law, McDaniel & Hartford, both Beaumont, Tex.; Knapp & East, Lake Charles, La.; J. C. Corbin, Napoleonville, La.; and R. J. McBride, Baton Rouge, La. (Lately noted.)

Md., Annapolis—St. John's College Alumni Assn., Dr. Nydegger, Pres., has plans by Fred F. French, Archt., New York City, for proposed extension of St. John's College; plans include faculty building and a science building to cost between \$70,000 and \$80,000, demolishing Humphreys Hall and erect a modern building.

Md., Baltimore—Board of Awards, Howard W. Jackson, Pres., approved specifications for construction of Jackson Place Elementary School and will award contract in 2 weeks; will house 1000 pupils; 3 stories and basement; 111x211.10 ft.; reinforced concrete, slate and promenade tile roof, marble, tile, mastic and wood floors, steel sash and trim; Theo. Wells Pietsch, Archt., American Bldg., Baltimore; contract for Southwest Junior-Senior High School will be awarded within a month; cost about \$1,000,000; Smith & May, Archts., Calvert Bldg., Baltimore. (Lately noted.)

Md., Hyattsville—County Board of Education, Upper Marlboro, proposes \$300,000 school bond issue for building in Prince George County; will include Hyattsville High School, \$125,000; Maryland Park High School, \$75,000; Beltsville (graded), \$10,000; Silver Hill (graded), \$15,000; Laurel (graded), \$60,000; \$15,000 for a consolidation school in Oxon Hill district to serve Fort Foote, Friendly, Oxon Hill and Selesia.

Miss., Darling—Consolidated School District, Dr. A. L. Nason, Pres., has plans by Pfleil & Awsumb, Memphis, Tenn., for erection of 2-story consolidated school; dark brick exterior, 10 rooms and auditorium, to seat 400, Italian Romanesque style; contract will be let soon.

Miss., Wiggins—School Board will erect 1-story brick school to cost \$45,000 and accommodate 600 children.

Mo., Cabool—Roland Nease, teacher of Roberts School building, recently noted destroyed, announced that steps will be taken to reconstruct the building.

Mo., Carthage—Rev. Dr. W. Arthur Smith, director of campaign to raise the \$1,500,-

000 educational fund, of which \$975,000 will be used for erection of Ozark Wesleyan College.

Mo., Cassville—Earl Hawkins, Springfield, has prepared preliminary sketches for school building; work on structure to begin in early spring.

Mo., Columbia—University of Missouri, Dr. J. C. Jones, Chmn. Memorial Campaign Comm., plan erection of proposed Memorial Union and stadium; plans call for immediate construction of memorial union to cost \$500,000 and first unit of stadium to seat 25,000 people and cost \$300,000; J. P. Jamieson, Archt. (Lately noted.)

N. C., Buie's Creek—A friend of Buie's Creek Academy has offered to give \$25,000 towards building a gymnasium if its other friends give that amount by Jan. 1.

N. C., Charlotte—Claude A. Cochran, city attorney, announces that city may soon hold election on school bond issue; amount will probably be \$1,000,000. (Lately noted \$2,000,000 bond election failed to carry.)

N. C., Hickory—School Board, R. W. Carver, Supt., will receive bids until Jan. 15 at office of Jno. W. Bailey, City Mgr., Hickory, for erection of Claremont High School; separate bids on general construction, heating and ventilating, plumbing and sewerage, electric wiring and conduit work; bids for furniture and special equipment will be opened later; steel frame, slow burning construction; 110x250 ft., H shape; cost complete \$225,000 from recent \$250,000 bond issue; will contain 24 academic and administrative rooms in central portion with auditorium and home economics department in one wing and gymnasium and shops in other wing; Plans on file at office of City Mgr., Hickory, N. C., and offices of C. Gadsden Sayre, Archt., Anderson, S. C., and Raleigh, N. C.; Atlanta Builder's Exchange, Chamber of Commerce, Charlotte, N. C. and Chamber of Commerce, Greensboro, N. C. (Lately noted.)

N. C., Oxford—Board of Directors, Oxford Orphanage, have plans for construction of school building on campus of institution; bids will be invited early in Feb. and to be completed by Sept. 15.

N. C., Raleigh—State College of Agriculture and Engineering will receive bids until Dec. 28 for erection of library building; 114x100 ft.; fireproof floors, slag and copper roof, brick exterior with marble trimmings, reading room to contain cork floor, terrazzo floors, stairs will be ornamental iron with slate treads, steel sash; address all communications to Hobart Upjohn, Archt., Grand Central Terminal, New York City.

N. C., Wake Forrest—Wake Forrest College Alumni Assn., J. W. Bunn, of Raleigh, Pres., proposes erection of \$250,000 library building at the college as a memorial to Dr. Chas. E. Taylor; Gilbert T. Stephenson, of Raleigh, is Chmn. of Comm., to recommend ways and means of raising necessary money.

Okla., Tulsa—School Board plans expenditure not to exceed \$30,000 for building on Lewis Ave. site and similar amounts on Kendall, Mark Twain, Broken Arrow, Eugene Field, and Dunbar schools; will also provide fire escapes for Celia Clinton, Riverview and Sequoyah schools; Architect Shumway was instructed to prepare sketches and later plans.

S. C., Columbia—Columbia School District, Board of Trustees, has not fixed date for opening bids for erection of negro school on Williams St.; Wilson & Berryman, Archts., Columbia, S. C. and Wilson and Gastonia, N. C. (Lately noted to open bids about Dec. 15.)

S. C., Williamston—Williamston School District trustees announce plans for erection of

grammar and high school to start in spring and bond issue to be launched in near future.

Tenn., Chattanooga—School Board, Fred B. Frazier, Chmn. Comm., will have plans revised by W. H. Sears and Percy Shepherd for erection of an addition to East Fifth Street Grammar School; auditorium with movable partitions to be used as class rooms. (Lately noted.)

Tenn., Greenville—Board of Mayor and Aldermen will soon call election to vote on \$100,000 school bond issue, for erection of High School; committee has secured services of D. R. Beeson, Archt., Johnson City.

Tenn., Knoxville—School Board, L. H. Spelman, Pres., interested in election of \$1,000,000 school bonds.

Tenn., Memphis—School Board, L. C. Humes, Pres., has selected following architects: C. O. Pfeil and Geo. D. Awsumb, plans for high school for North Memphis, cost not to exceed \$200,000; Regan & Weller, plans for Negro Industrial High School on Mississippi Ave., cost not to exceed \$200,000; Anker F. Hansen, plans for addition to Riverside Graded School and Hubert T. McGee, plans for Cummings Graded School addition, both additions to have 6 rooms.

Tenn., Oak Grove—Vote for erection of school building was defeated.

Tex., Dallas—Highland Park voted issuance of \$100,000 school bonds for construction of additional school facilities to include addition to Armstrong school after plans by Lang & Witchell, Dallas.

Tex., Houston—School Board has plans by Endress & Cato, Archts., Houston, and expect construction to start soon after Jan. 1, on first unit of \$150,000 school on Cherryhurst site; 9-room unit costing \$67,000; completed building will have auditorium, rest room, library and 19 class rooms. (Lately noted.)

Tex., Robstown—School Board plans erection of \$100,000 high school, will contain gymnasium, etc.

Tex., Victory—Reynolds Orphanage, Chmn. executive comm., selected David S. Castle Co., Dallas, to prepare plans for erection of dormitory building to be erected at Reynolds Memorial Presbyterian Orphanage; cost \$40,000; 2 stories with basement, reinforced concrete and brick; accommodations for 130; contract will be awarded in Jan.

Va., West Point—School Board will receive bids on construction and heating until Jan. 9, for high school building; plans and specifications may be examined at office of D. N. Sutton, Chmn., or may be secured from Linthicum & Linthicum, Archts., Raleigh, N. C.

W. Va., Maggle—State Board of Control, Jas. S. Lakin, Pres., Charleston, will receive bids until Jan. 31 for erection of West Virginia Industrial School for Colored Boys to cost about \$140,000; 138x45 ft.; 3 stories and sub-basement; concrete foundation, exterior face brick. Blue Indiana Oolitic limestone trim, slate roof, steel roof trusses, interior finish generally oak, oak, tile and concrete floors, plastered walls, metal stairways with slate treads and landings, construction reinforced concrete floor slabs and protected steel girders, steam heat, electric lighting, plumbing and sewerage; Theo. T. Sansbury, Archt., Parkersburg, W. Va. (Previously noted.)

W. Va., Morgantown—West Virginia University will begin erection of stadium on March 1; Dr. L. C. White, Pres. of Alumni Assn., Gen. Chmn. of Comm.; A. Brooks Fleming, Jr., of Fairmont Consolidation Coal Co., are directing campaign to raise \$500,000. (Lately noted.)

Stores

Ark., Stamps—Dr. F. E. Baker will erect 1-story brick building; 2 stores 31x100 ft. each; composition roof, cement foundation, concrete and cement floors, metal ceilings.

Fla., Bradenton—American Enterprises, Inc., Jno. K. Culver, Pres., 415-6 Munsey Bldg., Baltimore, Md., and Elliott W. Darling, Vice-Pres., Bradenton, have purchased property fronting on Manatee Ave. and Broad and Walnut Sts., and will erect 2-story building in two sections; cost \$125,000; 150x145 ft.; fireproof; hollow tile and stucco; 11 store rooms on ground floor; "L" shaped with court in rear; freight elevator.

Ga., Rome—Curry-Arrington, wholesale druggists, announce that work on \$60,000 concrete building will begin in March; 4 stories with 45,000 sq. ft. floor space.

La., Shreveport—Rubenstein Bros. has completed deal for Kittrell Bldg., and site on Milam St., for \$125,000 and contemplates expenditure of \$50,000 or more for alterations and improvements and possibly addition of another floor; present lease on Kittrell Bldg. has one year to run and Rubenstein interests will not take possession until that time.

Mo., St. Louis—Joseph M. Liebowits has purchased 25 feet of ground on S. Grand Blvd. at Cherokee St. and plans erection of store building with 5-room flat above.

N. C., Charlotte—S. T. Henderson of the real estate firm of J. A. Henderson & Co., announces that building on East Trade St. will be replaced at once. (Lately noted destroyed by fire.)

Okla., Norman—Frank McGinley plans to erect \$12,000 structure to replace building recently burned.

Okla., Norman—R. C. Berry will erect 2-story brick and stone structure to cost about \$40,000; 75-ft. frontage; recently burned.

Okla., Ponca City—H. F. Harter will soon let contract for erection of a 2-story brick and stone building at 207 E. Grand Ave. to be occupied by Woolworth Five & Ten Cent Store; 25x140 ft.

S. C., Greenville—W. D. Parrish and associates have purchased property on N. Main St. and contemplate erecting commercial structure; 2 or more stories; 60x130 ft.

Tenn., Memphis—S. Rees Lee has purchased 325 ft. on Madison Ave. and will improve in spring with brick store buildings.

Tex., Austin—M. H. Crockett will soon award contract for erection of 1-story brick store building on Guadalupe St., to cost \$18,000; 80x84 ft.; H. F. Kuehne, Archt., 824 Littlefield Bldg., Austin.

Tex., Dallas—J. W. Crowds Drug Co., is having plans prepared by L. R. Whitson and F. C. Dale, for erection of 5-story reinforced concrete building at a cost of about \$200,000; 125x213 ft.

Tex., Houston—Jas. A. Baker, Sr., will expend \$120,000 for erection of 1-story business buildings on tract 258.4 ft. on Main St., 252.6 ft. on Bell Ave., 152.6 ft. on Clay Ave., and 117.2 ft. on Travis St.; metal awning along the 4 streets; brick and reinforced concrete.

Tex., Nacogdoches—Cason, Monk & Co., have purchased the opera house, a 5-story brick building, and will convert into hardware store.

Theatres

Fla., Pensacola—Saenger Amusement Co., E. M. Clark, Sec., plans to erect theatre on Intendencia St.; The Turner Construction Co., Atlanta, Southern Construction Co., and C. A. Fulghum of Pensacola, have made application

for blueprints and plans for general contract; Electric Shop, Barocco Electric Co. and Woodward & Keene, all of Pensacola, have applied for electrical plans. Construction to start by Feb. 1, and be finished by fall.

Warehouses

Miss., Vicksburg—J. E. Dilworth Co. of Memphis, plans to erect \$50,000 warehouse on Levee St.

Tenn., Chattanooga—C. W. Howard, Mgr. of Industrial Bureau of Chamber of Commerce is interested in erection of 6-story fireproof warehouse.

Tex., Dallas—Fisher Supply Co., has plans by Flint & Broad, Dallas, for erection of an office and warehouse building on S. Harwood St.; cost about \$40,000; 1-story; "L"-shaped; 171x130x40 ft.; inclosed and covered pipe yard, 127x90 ft.; steel trusses.

BUILDING CONTRACTS AWARDED**Association and Fraternal**

Miss., Jackson—Young Women's Christian Assn. let general contract to Beckheimer Construction Co., Hattiesburg, Miss., for erection of \$70,000 building on Oak St., electric wiring to Electric Service Co.; plumbing to Southern Equipment Co., both Laurel; building to be slow-burning brick construction, main building 2 stories, with 1-story, 45x70-ft. building for auditorium and stage; dimensions over all, about 70x125 ft.; 20x60-ft. swimming pool, shower baths, dressing rooms, and office in basement; slate and composition shingle roofs; Frank G. Churchill, Archt., Canal-Commercial Bldg., New Orleans, La. (Lately noted.)

Tex., Port Arthur—Masonic Building Assn. let contract at \$168,000 to Hickey & Montgomery, Dallas, Tex., for erection of concrete and steel building; fireproof, cement and wood floors, composition roof; stores on first floor, lodge rooms above; Wm. B. Itner, Archt., Board of Education Bldg., St. Louis, Mo. (Previously noted.)

Bank and Office

La., Gibsland—First National Bank will rebuild structure lately noted burned at \$17,000 loss, including fixtures; 30x80 ft., brick foundation, 1-story, metal ceilings, concrete floors; W. M. Burkhalter, Archt.-Contr., Gibsland; details not decided.

Md., Cumberland—Second National Bank, Tasker G. Lowndes, Pres., let contract to John I. Vandegrift, Cumberland, for extensions and improvements to building, including mezzanine floor and new vault; cost \$25,000; Geo. Flack Sansbury, Archt., Cumberland; work will probably start Feb. 1.

Mo., Kansas City—Kansas City Structural Steel Co. has contract for steel frame for \$1,250,000 10-story Board of Trade office building to be erected by Mrs. Rodella Dwight Lease, Jos. A. Bruening, representative, Dwight Bldg.; general contract let to Pratt-Thompson Construction Co., noted Nov. 22; McKecknie & Trask, Archts., 719 Lloyd Bldg., both Kansas City.

Tex., Dallas—Lone Star Gas Co., R. A. Crawford, Vice-Pres.-Gen. Mgr., let contract at \$140,000 to Hughes O'Rourke Construction Co., Dallas (noted Dec. 20), for erection of reinforced concrete, brick, stone and terra cotta office building, Harwood and Wood Sts.; 4 stories, 80x90 ft., concrete floors and foundation; built-up tar and gravel roof, hollow and interior tile, metal doors, vaults, mail chutes, vault lights, steel sash and trim, wire glass; no bids yet for heating, electrical work, plumbing or elevators; excavation begun; Lang & Witchell, Archts., Dallas.

Churches

Ark., Batesville—First Baptist Church, Rev. Alonzo Cagle, Pastor, let contract to Young Bros., Batesville, at \$47,500 for erection of English Gothic type building, 3rd and Main Sts.: sandstone rock trimmed in marble, 135x140 ft., oak and pine floors, wood shingle roof, interior tile, ventilators,

ornamental terra cotta, rolling partitions, steel sash and trim, steam heat; Dougherty & Gardiner, Archts., Stahlman Bldg., Nashville, Tenn. (Previously noted.)

Fla., Jacksonville—Woodstock Park Baptist Church, Rev. C. E. Lubin, Pastor, let contract to Ponder & Hammell, Jacksonville, for erection of \$10,000 frame building; Jefferson D. Powell, Archt., Jacksonville.

Mo., Sedalia—Reorganized Church of Jesus Christ of the Latter Day Saints, Dr. G. W. Rodger, interested, is erecting concrete basement of frame and stucco building, 9th and Montgomery Sts.; 1-story, 30x50 ft. with 7x22-ft. vestibule; double pine floors; J. B. Rodger, Archt., 1400 W. Short St., Independence, Mo. (Lately noted.)

Mo., St. Louis—Advent United Lutheran Church, care Rubicam Auditorium, Grand Blvd. and Potomac St., let contract for erection of Gothic type chapel, Grand Blvd. and Winnebago St.; 75x29 ft., matt brick with stone and terra cotta trim; O. D. Schmidt, Archt., St. Louis.

N. C., Winston-Salem—Brown Memorial Baptist Church, Egbert L. Davis, Chmn. Bldg. Comm., let contract on percentage basis to J. L. Crouse, Greensboro, N. C., for erection of addition to and remodel present section; 5 stories, 60x150 ft., brick construction; auditorium to seat 1200, Sunday school rooms in basement; to build up present walls 19 ft. to provide balconies; cost about \$85,000; heating not let; construction to start about March 1; C. Gilbert Humphries, Archt., Winston-Salem. (Lately noted.)

City and County

Ga., Augusta—Record Room—Richmond County, H. A. Norrell, Clk., Board of Comrs. of Roads and Revenues, let contract at \$16,000 to Holley Construction Co., Lamar Bldg., Augusta, for erection of fireproof record room on courthouse lot; 44x42 ft., 1-story and balcony, tile and concrete floors, brick foundation, slate roof on Pyrobar, hollow tile, rolling steel door and window shutters, steel sash, wire glass; addition to present heating plant; contract for plumbing to T. G. Birmingham, 631 Broad St.; addition to present electric plant to Caple Electric Co., 210 8th St.; Story & Clark, Archts., 208 Leonard Bldg., all Augusta. (Lately noted.)

Md., Baltimore—Library—City, Howard W. Jackson, Mayor, let contract to L. L. Chambers, 36th St. and Roland Ave., Baltimore, for erection of \$30,000 library, N. W. cor. Longwood and Roland Aves.; 1 story, brick; Buckler & Fenagen, Archts., 325 N. Charles St., Baltimore.

Mo., Joplin—Clubhouse—Park Board let general contract to A. S. Greenwell, Gentry Apts., Joplin, for erection of reinforced concrete, tile and stucco clubhouse in Schifferdecker Park; cost about \$10,000; 50x100 ft., 2 stories, concrete and maple floors, concrete foundation, asphalt roof; conduit system electric wiring to Joplin Armature Works; plumbing to W. C. Kerwin; Truman E. Martinie, Archt., all Joplin. (Lately noted.)

N. C., Shelby—Jail—Cleveland County, A. E. Cline, Chmn., Board of Commrs., let contract Nov. 5 to Roanoke Iron & Bridge Works, Roanoke, Va., at \$62,500, for erection of fireproof jail; 3 stories, 43x68 ft., concrete floors and foundation, slate roof; heating, lighting, plumbing and elevator in general contract; Wilson & Berryman, Archts., Columbia, S. C., and Wilson and Gastonia, N. C. (Lately noted.)

Tenn., Memphis—Fire Station—City let general contract to McKnight & Fincher, for erection of \$22,000 fire station, Cummer Ave. and Parkway; painting to Edward Liming; plastering, A. F. Hopton; millwork, Lee Lumber Co.; brickwork, Thos. Yarwood; sheet metal work, W. E. Sanders; Hunker & Cairns, Archts., all Memphis.

Tex., Houston—Fire Station—City let contract at \$9121 to N. C. Jensen for erection of Montrose-Hyde Park fire station, electrical work to Barden Electric & Contracting Co., \$314; plumbing, Jack Harden at \$786, all Houston; plans by W. A. Dowdy, City Archt. (Lately noted.)

Tex., Orange—Jail—Orange County let contract to Southern Steel Co., San Antonio, Tex., at \$45,570, for erection of fireproof jail on Border St.; 2 stories, accommodate 116; steam heat, electric lights, water, sewerage, etc.; County plans to remodel present jail as annex to courthouse, upon completion of new structure. (Lately noted.)

Va., Portsmouth—Market—City let general contract to Duke Smith, at \$103,066 for erection of market building at Middle and South Sts.; plumbing and heating to Oscie Dashiell & Co., at \$15,950 and refrigeration to F. A. Mahegan at \$11,000, all Portsmouth; 90x170 ft., concrete and brick construction, concrete and wood floors, metal ceilings, steel sash and trim, 5-ply slab roof; plans by M. L. Parker, Inspector of Bldgs.; readvertising for bids for refrigerators and cases. (Lately noted.)

Dwellings

Fla., Fulford—C. E. Merritt, Civil Engr., Utica, N. Y., has started construction of cottage on Fulford Blvd., west of Civic Center.

Fla., Fulford—M. C. Tebbets, Pres., Florida Cities Finance Co., has started construction of cottage on Fulford Blvd., west of Civic Center.

Fla., Miami—City Builders Finance Co., Harry Rice, Pres., has started construction of 2 dwellings on Drexel Ave., near Lincoln Rd., Lincoln subdivision; 1, frame and 1, cement block and stucco; cost \$12,000 each, 2 stories.

Ga., Atlanta—Don Carlos Dubois, City Auditorium, let contract for hot air heating to Holland Furnace Co. and plumbing to Loftis Plumbing Co., both Atlanta, \$10,000 residence on Cornell Drive; dwelling to be brick and frame, 2 stories, 8 rooms, hardwood floors, composition shingle roof; brick foundation completed; electrical work not let; G. Lloyd Preacher & Co., Archts., Healey Bldg.; G. R. Bond, Contr., both Atlanta. (Lately noted.)

La., New Orleans—Homeseekers Building Assn., will erect one \$11,000 and one \$9650 dwelling, Taft Place and Dumaine St.; L. Delrosa, Contr., New Orleans.

Md., Baltimore—Geo. Shafer let contract to J. Henry Smith, 300 E. 33rd St., Baltimore, for erection of \$10,000 frame dwelling N. E. cor. Cross Country Blvd. and South Ave.; 1½ stories, 40x26 ft., slate roof, hot water heat; H. F. Zeigler, Archt. (Lately noted.)

Md., Baltimore—Atlas Construction Co., 16 E. Lexington St., desires bids on lumber,

millwork, hardwood flooring, plumbing, etc., for 19 two-story brick dwellings under construction; ordinary masonry and brick construction; 18x75 ft., hardwood and pine floors, plastic slate or slag roofs; heating and lighting not let; contracts awarded for stone and brick work. John R. Forsythe, Archt., 16 E. Lexington St.; owner builds. (Lately noted.)

Md., Baltimore—Wm. M. Elder, Montebello Ave. and Jenkins St., let contract to L. L. Chambers, 36th St. and Roland Ave., Baltimore, for erection of \$15,000 brick residence and garage, 3210 Liberty Hgts. Ave.; 2½ stories, 40x36 ft. and 20x19 ft., slate roof, hot air heat; E. L. Palmer, Jr., Archt., 513 N. Charles St., Baltimore. (Lately noted.)

Md., Hagerstown—Equitable Builders, Inc., Grover C. Crilly, Pres., 205 Roessner Bldg., plan to erect number of dwellings; plans by Mr. Crilly; construction by owner.

Mo., Clayton (Ind. Branch St. Louis)—F. A. Biston will erect \$18,500 residence, W. Moorlands Drive, Moorlands Park; brick and tile, 62x24 ft.; plans and construction by owner.

Mo., Clayton (Ind. Branch St. Louis)—A. L. Dickie, 4352 Washington St., will erect \$14,000 brick residence on Polo Drive, Country Club Place; 68x33 ft.; Dickie Construction Co., Contr., Clayton.

Mo., St. Louis—Sedgely Investment Co., 111 N. 7th St., will erect three-story brick tenement, 4912 Buckingham Court and 14 South Court; 50x37 ft. tar and gravel roofs, steam heat; N. B. Howard Archt., Arcade Bldg., St. Louis; owner builds.

Mo., St. Louis—Isadore Hassenbusch is erecting Colonial residence, 2810 Ashland Ave.; 3 stories, 12 rooms and 3 baths; cost \$30,000; garage in basement.

Okla., Ponca City—Burt Crips has started erection of 2 dwellings in 200 block Highland Ave.

Tex., Houston—Fred J. Heyne is erecting \$11,500 six-room brick veneer dwelling, 220 Westmoreland St.

Tex., Austin—John C. Ross, 317 Congress Ave., let contract to Blackmore Bros., 205 E. Live Oak St., Austin, for erection of \$13,000 residence in Enfield Addition; 2-stories, frame stuccoed, edge grain pine floors, shingle roof, hot air heat, \$500; Giesecke & Harris, Archts., Littlefield Bldg., Austin. (Lately noted.)

Va., Richmond—Max E. Ruehrmund plans construction in the spring to include the following: 80 six-room dwellings in 2000 block Rosewood St.; 10 bungalows on Taylor St., west of Boulevard and four 12-suite apartments on Belmont St.; total cost about \$500,000.

Hospitals, Sanitariums, Etc.

Ark., Hot Springs National Park—Standard Lumber Co., Pine Bluff, Ark., has contract for all lumber and millwork for \$150,000 Ozark Sanatorium under construction by Pottinger Sons & Co., 4321 Keystone St.; Wolf, Sexton, Harper & Trueax, Archts., 7 W. Madison St., both Chicago, Ill. (Lately noted.)

Hotels and Apartments

Ala., Opp—Mrs. W. W. Rye, let contract to R. W. Scoggins, Opp, at \$12,000, to erect 2-story hotel; 58x58 ft.; brick foundation, brick veneer and frame walls; asbestos roof, pine and concrete floors, rolling partitions, 20 rooms; contractor is architect. (Lately noted.)

Fla., Fort Pierce—A. J. Brewer, Contractor and Builder, Fort Pierce, has moved Atlantic Hotel from its former location on N. 2nd

St., a couple of blocks farther north, and has contract for extensive improvements, including addition of a brick ground story, stuccoing entire building, remodeling and redecorating interior.

Fla., Jacksonville—C. H. Groff let contract to O. P. Woodcock, to erect second-story additions to 8 1-story frame flats, 908-22 West Beaver St.; cost \$16,000.

Fla., Vero—Florida Auto-tel System, Inc., awarded contract to C. H. Helfner of Orlando Fla., and Atlanta, Ga., for construction of the Vero Auto-tel unit at \$96,714; main building containing 49 bed rooms, dining room, kitchen, lobby and 6 cottages each containing 4 rooms; also plans bond issue for \$50,000 to raise additional funds for the Vero unit.

N. C., Charlotte—Felix Hayman let contract to Jno. R. Kenyon, Charlotte, to erect \$20,000 apartment house at 7th St. and Park Ter., Piedmont; to contain 16 rooms.

Tenn., Knoxville—General Building & Finance Co., Acuff Bldg., awarded contract to A. R. McMurry, Mercantile bldg., Knoxville, to erect 6-story apartment building; hardwood flooring, reinforced concrete and tile, concrete foundation, built-up roofing, hollow tile, interior tile; Barber & McMurry, Archts., Acuff Bldg., Knoxville; L. P. McAuliffe, Warren Webster Steam heat and plumbing; Wright-Casen Co., electric wiring; both Knoxville; contracts for 1 automatic passenger elevator and 4 dumbwaiters not let.

Tenn., Memphis—O. E. Wolf let plumbing to Pritchard Bros., and millwork to Lee Lumber Co., for apartment on Clark Place; J. Frazier Smith, Archt., all Memphis.

Tex., Fort Worth—Anthony Van Tuyl will erect 4-story hotel on northwest corner Ellis Ave. and 24th St., North Side, to cost \$110,000 and contain 72 rooms, fireproof; builder is also architect and contractor.

Tex., San Antonio—Henry T. Phelps, Archt., is receiving bids for plumbing, electric wiring and heating, for 10-story apartment building being erected by S. L. Jeffers at Avenue E. and 3rd St.; cost \$300,000; reinforced concrete frame, brick and stone; building by day labor. (Lately noted.)

Va., Richmond—Max E. Ruehrmund plans to erect four 12-suite apartments on Belmont St.; owner to build. (See Contracts Awarded—Dwellings.)

Miscellaneous

Tex., Fort Worth—Auditorium—American Building Corp., H. P. Sandidge, Pres., awarded contract to B. B. Adams, to erect \$50,000 steel, brick and tile auditorium on Main St.; 100x200 ft.; Earl T. Glasgow, Archt., Fort Worth. (Lately noted.)

Schools

Fla., Longwood—Board of Public Instruction, Seminole Co., Sanford, Fla., T. W. Lawton, Supt., awarded contract to J. B. Southard, Orlando, Fla., at \$21,174, to erect cement block and brick school to serve Longwood and Altamonte; 1-story; 70x133 ft.; composition and built-up roof, concrete foundation, wood floors; E. J. Moughton, Archt., Sanford, Fla. (Lately noted.)

Md., Baltimore—Board of Directors of Calvert School awarded contract to Consolidated Engineering Co., 243-69 Calvert Bldg., to erect school building on Fortieth St. between Canterbury Road and Stoney Run Lane; work to start immediately; Laurence Hall Fowler, Archt., 347 N. Charles St.

S. C., Lexington—School Board awarded contract to Corley Bros., Lexington, to erect annex to Lexington County High School;

2 stories, 6 rooms and auditorium, brick, tin roof, wood floors, concrete foundations; cost \$39,500; W. B. Guimarin & Co., Columbia, plumbing and heating; Wilson & Berryman, Archts., Columbia, S. C., and Wilson and Gaston, N. S. (Lately noted.)

S. C., St. Mathews—School Board awarded contract to Julian L. Riley, St. Mathews, at \$32,800, to erect high school building; 2 stories; will contain auditorium.

Tenn., Memphis—School Board awarded contract to W. C. Owen, to erect addition to Collierville High School to cost \$20,000; 3 rooms; Jones & Furbringer, Archts., Memphis. (Lately noted.)

Stores

Fla., Miami Beach—B. O. Furry let contract to D. J. Posey, to erect 1-story business building at Ocean Drive and 2nd St., to cost \$10,000; fireproof, concrete block, 50x40 ft.; R. A. Praes, Archt., Miami.

Fla., St. Petersburg—John B. Green and William Richman awarded contract to W. H. Price, St. Petersburg, on cost plus basis, to erect arcade at 689 Central Ave.

Ga., Atlanta—Georgia School of Technology, Dr. M. L. Brittain, Pres., will erect Ceramics Building; plans by faculty of Department of Architecture; 40x80 ft., brick walls, tile roof, tile and concrete floors, concrete foundation, hollow tile, interior tile, ornamental terra cotta, steel sash and trim; low pressure steam heat and 110 A.C., 60 cycle electric lighting plant being installed by owners; all materials being donated by Atlanta firms; owner builds by day labor. (Lately noted.)

Ga., Augusta—J. B. White & Co., awarded contract to C. H. Van Ormer, Augusta, to erect store building at 938-48 Broad St.; 4 stories and basement; 76x271 ft.; steel frame; brick, terra cotta and tile; front of polychrome terra cotta and granite; Italian Renaissance style; plate glass windows in copper frames; sprinkler system; 1 freight and 2 passenger elevators; fire escapes; Warren

Webster vapor heat; Willis Irwin, Archt., Augusta. (Lately noted.)

Ia., New Orleans—G. E. and E. E. Reinmann, contractors for erection of 3-story store at 1019-21 Canal St., for W. T. Grant Co., New York City, has awarded following sub-contracts: Glazing, Pittsburgh Plate Glass Co., Frick Bldg., Pittsburgh, Pa. and 53 Larned E., Detroit, Mich.; brick, American Brick Co.; millwork, Reinmann Manufacturing Co.; plumbing and heating, American Plumbing & Heating Co.; steel joists, Truscon Steel Co., Youngstown, Ohio; structural steel, Lukens Steel Co., Coatesville, Pa.; tile flooring, Southern Tile Co.; sheet metal work, Estate R. G. Holzer; marble, New Orleans Marble Co.; tile flooring, Southern Tile Co.; plastering, Edw. Chronester; elevator doors, American Sheet Metal Works, Nathan Godchaux Bldg., all New Orleans. (Lately noted.)

Mo., Fillmore—School Board awarded contract to G. F. Construction Co., Exira, Iowa, to erect 8-room addition to public school; contract for wiring and lighting let; work to start in spring and be completed by opening of fall term; E. Wagenknecht, Archt., St. Joseph, Mo.

Mo., St. Louis—Louis Able, 3625 Montana St., let contract to Arthur Hess Co., 217½ N. 10th St., to erect 2-story stores at 7525-27 S. Broadway; cost \$20,000; 45x98 ft., composition roof, steam heat; contractor is also architect.

N. C., Charlotte—J. B. Ivey & Co. awarded contract to Reine & Salmon, Wm. F. Sippel, Pres., Warner and Ostend Sts., Baltimore, Md., at about \$27,000, for equipping first floor of new department store; will let contract for each floor separately. (Previously noted.)

Tenn., Memphis—W. P. Brown of W. P. Brown & Co., awarded contract to T. C. McDowell, Memphis, to erect 2-story brick store building at 261 Madison Ave. to cost \$10,000.

Tex., Houston—Henry C. House awarded contract to J. B. Townsend, to erect 7-story store building at Milam St. and Capitol Ave. to be occupied by Black Bros. Furn-

niture Co.; cost \$130,000; 100x100 ft., steel and concrete; elevators, electrical installations and plumbing contracts will be let later; first 3 floors hardwood and others stained concrete; Jones & Tabor, Archts., Binz Bldg., Houston. (Lately noted.)

Tex., Taft—Taft Mercantile Co. awarded contract to Sumner Sollitt Co., Natl. Bank of Commerce Bldg., San Antonio, to erect 1-story brick and concrete store; 60x100 ft., tile, composition roof, electric wiring, metal ceilings; wiring and plumbing not included in general contract; Jno. M. Marriott, Archt., Frost Bldg., San Antonio. (Lately noted.)

Va., Richmond—Davis Brothers, Inc., will erect building at 1008 North Boulevard for Spitzer Cleaning Co.; to be completed by April or May. Owner builds.

Warehouses

Fla., Jacksonville—Crane Co. let contract to R. J. Gallispie, Jacksonville, to erect 1-story warehouse; cost \$16,000.

Fla., Tampa—W. Lesley Brown, City Mgr., awarded contract to McGucken, Edwards & McGucken, Tampa, at \$79,000, to erect municipal warehouse at docks; work must be completed 150 days from time contract is signed. (Lately noted.)

Ia., Shreveport—Alcock Estate, Clarence King, let contract to G. & G. Construction Co., Shreveport, for \$37,884, to erect brick and stone warehouse for Frank Wholesale Grocery Co., at Third, Edwards and Davis Sts.; 141x241 ft.; 1-story; will install grain elevator and cold storage plant. (Lately noted.)

Tex., Dallas—E. P. and Virgil Fisher let contract to L. H. Lacy Co., Dallas, to erect brick warehouse and office at 2400-2408 S. Harwood St.; cost \$32,000 including plumbing and wiring; "L"-shaped 40x130 ft., 40x186 ft., with pipe shed and enclosed yard 91x100 ft.; concrete flooring, gravel and tar paper roof, 1-story, metal doors, vaults, vault lights, ventilators; Flint & Broad, Archts., Andrews Bldg., Dallas. (Lately noted.)

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Air Compressor.—W. T. Barr, Pres., Arkansas Granite Co., Little Rock, Ark.—Prices on two 250-ft. air compressors.

Grading.—City of Cumberland, Md. Details under Construction News—Road and Street Construction.

Amusement Park Devices.—Houston Amusement Park, Inc., Houston, Tex.—Prices on amusement park devices.

Bands (Pipe Covering).—Southern Steam Specialties Co., 50 S. Forsythe St., Atlanta, Ga.—To correspond with manufacturers of bands used on asbestos pipe covering; also to purchase the metal that is used in manufacture of these bands.

Automobile Accessories, etc.—Green Sales Co., Inc., 1701 W. 43rd St., Kansas City, Mo.—To correspond with manufacturers of automobile accessories or hardware, with view to representation.

Bathing Caps and Suits.—Houston Amusement Park, Inc., Houston, Tex.—Prices on bathing caps and suits.

Bending Roll.—R. E. Boggs (Mchly. Dealer), Age-Herald Bldg., Birmingham, Ala.—Desires prices and complete description of a Pyramid type bending roll with or without motors, that will take $\frac{1}{4}$ -in. plate, 12 to 16 ft. wide.

Boilers.—T. E. King (Mchly. Dealer) Springfield, Ga.—Dealers prices on battery of two 125 h.p. return tubular boilers, high pressure, not less than 125 lbs. working mill machinery.

steam pressure; f.o.b. Denmark, S. C., immediate delivery.

Brick (Hand Moulded).—Hobart Upjohn, Grand Central Terminal New York City, Aaron G. Alexander, Mgr. Old Colonial hand-moulded brick for 140x56-ft. church at Pinehurst, N. C.

Bridge—City of Kansas City, Mo. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge Construction.—J. P. Kearby, Jr., La Grange, Tex.—Invites bids on substructure for main spans, and on superstructure of main spans, approach spans and approach embankment, either as whole or separate; 3 steel span, 580 ft. bridge with 600 ft. approach.

Canals.—Board of Drainage Commrs., Senatobia, Miss. Details under Construction News—Drainage and Irrigation.

Cars (Logging or Flat).—T. E. King, (Mchly. Dealer) Springfield, Ga.—Dealers prices on 10 or more 36-in. x 25 ft. flat cars for logging cars; can use regular skeleton frame or flats as long as 25 or 30-ft.; good condition; immediate delivery at Badham, S. C.

Channel Construction.—Lake Charles, La. Details under Construction News—Miscellaneous Construction.

Cotton Mill Machinery.—Col. Billie Mayfield, 901 Mason Bldg., Houston, Tex.—To correspond with manufacturers of cotton

Cotton Dusters.—Joe Lyons Machinery Co., 112 N. Louisiana St., Little Rock, Ark.—To correspond with manufacturers of cotton dusters; prefer a four row duster.

Derricks.—See Hoisting Machinery.

Engines.—T. E. King (Mchly. Dealer) Springfield, Ga.—Dealers prices on one 14x16-in.-15x16-in. or 14x18-in. centre crank, medium speed, balanced valve or four valve or rocking valve engine, will consider side crank self contained engine, modern make, good condition, complete with all fixtures, ready to operate, delivery Denmark, f.o.b.; also one 100 h.p. Corliss engine, good condition, f.o.b. Columbia, S. C., immediate delivery.

Flow Meters.—See Water Works Materials.

Fire Plugs.—See Water Works Equipment.

Gasoline Pump.—Norton W. Hart, Warrenton, Ga.—To contract for the manufacture of a gasoline pump to be known as "The Hart Fluid Dispenser."

Gate and Check Valves.—See Water Works Materials.

Glove Making Machinery.—Kerr Wilson, Greenville, S. C.—To purchase machinery to make gloves from cotton canvas or cotton flannel.

Graphite Lubricants.—U. S. Marine Corp., Quartermasters Dept., Washington, D. C.—Bids until Jan. 3 to furnish 9700 lbs. transmission lubricant delivery Hampton Roads,

Va.; 3000 lbs. transmission lubricants delivery Quantico, Va.; 5000 lbs. transmission lubricants, 1200 lbs. graphite axle grease and 100 gals. graphite spring oil and rust solvent, delivery, Phila., Pa.; samples required. (Sch. 270.)

Gravel.—Louisiana Highway Comm., Raymond Bldg., Baton Rouge, La.—Bids until Jan. 15 to furnish 7650 cu. yds. washed gravel, or as alternate 10,200 cu. yds. sand-clay gravel or 3400 cu. yds. washed gravel and 6800 cu. yds. sand-clay gravel to surface Project No. 386-A; plans, etc., on file; J. M. Fourmy, State Highway Engr.

Gravel.—John Sutherland, Falls County Auditor, Marlin, Tex.—Receives bids until Jan. 2 to furnish surface gravel for highways in Falls County; include 55,000 cu. yds. gravel surfacing; state price f.o.b. cars at pit; J. P. Wehrung, County Engr., Lott, Tex.

Heater (Steam).—T. E. King, (Mchly. Dealer) Springfield, Ga.—Dealers prices on one 400 to 500 h.p. closed type exhaust steam heater; must have not less than 8-in. intake and discharge openings; f.o.b. Denmark, S. C.; immediate delivery.

Heating Plant.—Board of Awards, F. A. Dolfield, City Register, Baltimore, Md. Bids until Jan. 2 for greenhouse heating plant, Clifton Park.

Heating, Plumbing, etc.—Honorable County Court of Pettis Co., Sedalia, Mo.—Receive bids until Jan. 15 to furnish all labor and material covering the heating, plumbing, wiring and furniture contracts for Court House; W. E. Hulse & Co., Archt., Hutchinson, Kan.

Hoisting Machinery.—Mallory Machinery Corporation (Machinery Dealers), 522-524 Light St., Baltimore, Md.—Two 10x12 or larger D. C. D. and swinger steam hoists without boilers; also two stiff leg steel derricks 40 or 50 ft. mast, 50 or 60 ft. boom and 40 ton capacity.

Hydrants—See Water Works Materials.
Pipe (Cast Iron)—See Water Works Material.

Land Dredge.—Office of Comms. of Chat-ham County and Ex-Officio Judges, Savannah, Ga.—Bids until Jan. 10 to furnish county with one internal combustion land dredge equipped with not more than 3-4 cu. yd. capacity bucket, operated by at least 50 h. p. internal combustion engine; machinery so designed to dig new ditches and clean those already dug; G. Reuben Butler, Clk.

Light Plant.—U. S. Marine Corps., Quartermaster's Dept., Washington, D. C.—Bids until Jan. 3 to furnish one complete light plant, delivery Hampton Roads, Va. Sch. 271.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, General Purchasing Office, Washington, D. C.—Bids until Dec. 31 to furnish: Steel and brass bolts; nuts and screws; steel rivets; expansion-bolt shells; paint pots; tubular lanterns; steel and metallic tapes; perforated chair seats; and geared pumps. Blank forms and information (Circular 2342) on application to offices of Panama Canal, Asst. Purchasing Agents at Fort Mason, San Francisco, Cal.

Papier Mache Apparatus.—Arthur Priddle, 693 Mission St., San Francisco, Cal.—To purchase papier mache apparatus and process to produce fairly waterproof or damp proof material; the production will not exceed 2-in. in depth from flat sheet and the sheets can be from 3 ft. square to as large as 4 ft. wide x 8 to 16-ft. in length.

Paving.—City of Shreveport, La. Details under Construction News—Road and Street Construction.

Paving.—Board of Public Service, St.

Louis, Mo. Details under Construction News—Road and Street Construction.

Paving.—City of San Antonio, Tex. Details under Construction News—Road and Street Construction.

Paving.—Hillsborough County, Tampa, Fla. Details under Construction News—Road and Street Construction.

Pipe (Cast and Wrought Iron).—See Water Works Equipment.

Pipe and Fittings.—Board of Awards, F. A. Dolfield, Register, Baltimore, Md. Bids until Jan. 2 to furnish and deliver cast iron pipe and fittings to water department.

Rams (Hydraulic).—W. Bilbro, Route 8, Palestine, Tex.—Names and addresses of manufacturers of or dealers in good hydraulic rams.

Road—City of Kansas City, Mo. Details under Construction News—Bridges, Culverts, Viaducts.

Road—Dallas County, Dallas, Tex. Details under Construction News—Road and Street Construction.

Road—McCulloch County, Brady, Tex. Details under Construction News—Road and Street Construction.

Road—Louisiana Highway Comm., Baton Rouge, La. Details under Construction News—Road and Street Construction.

Road—Coke County, Robert Lee, Tex. Details under Construction News—Road and Street Construction.

Roof Repairs, etc.—Lafourche Parish Police Jury, Chas. J. Coulon, Clk., Thibodaux, La.—Bids until Jan. 9 for repairs and reconstruction of roof of courthouse; specifications from Mr. Coulon.

Saw Mill Edger.—T. E. King (Mchly. Dealer) Springfield, Ga.—Dealers prices on one extra heavy 48 to 54-in., for 4 saw, saw mill edger, with feeding in and out rolls; complete with saws, good condition; f.o.b. Badham, S. C., immediate delivery.

Seating.—Herbert S. Green, Alamo Nat. Bank Bldg., San Antonio.—Will open bids during first half of Jan. for 600 seats for Second Christian Science Church building; bids to be accompanied by sample of seat.

Sewers.—City of McKenzie, Tenn. Details under Construction News—Sewer Construction.

Snagboat—U. S. Engineer Office, Wilmington, N. C.—Bids until Jan. 28 for construction of one 90-ft. steel, stern wheel snag-boat.

Substructure.—See Bridge Construction.

Superstructure.—See Bridge Construction.

Swimming Pool—S. C., Spartanburg. Details under Construction News—Miscellaneous Construction.

Tank (Elevated)—See Water Works Materials.

Tires (Truck).—W. H. C. Ronsone, City Purchasing Agent, No. 4 Municipal Bldg., Monticello Ave., Norfolk, Va.—Bids until Dec. 27 to furnish standard solid truck tires, non-skid type, also for standard pneumatic automobile tires and tubes, service for 6 months, beginning Jan. 1, 1924.

Trimmer (Lumber).—R. S. Armstrong & Bro. Co., Atlanta, Ga.—To purchase double end lumber trimmer in good condition.

Water Works—City of Charlottesville, Va. Details under Construction News—Water Works.

Water Works Equipment.—N. B. Hodskin, Coal Creek, Tenn.—Prices on 6-in. cast iron pipe; 2, 3, and 4-in. wrought iron fittings; fire plugs; fire apparatus.

Water Works Material.—Town of Conover, N. C., C. R. Brady, Mayor, receives bids until Jan. 8 for following material for water works: Cast iron pipe and specials; gate and check valves; flow meters; hydrants; elevated tank; Spoon & Lewis, Engrs., 407 American Bank Bldg., Greensboro, N. C.

Financial News

New Financial Corporations

Ala., Decatur—Dixie Loan Co., incorporated by D. F. Lee, T. J. Newson and others.

Fla., Daytona—The Halifax Discount & Mortgage Co., capital stock \$150,000, paid in capital \$50,000, organized by A. C. Holland and J. Ponsang, of this city.

Fla., Tavares—Lake Region Abstract and Title Guaranty Co., capital \$50,000, incorporated by Paul F. Daniel, Pres., W. M. Cathrae, Sec. and V-P., W. S. McClelland, Treas.

Ga., Marietta—The Merchants & Farmers Bank, Ed. R. Hunt, Pres., and the Citizens Natl. Bank of Marietta, Ga., Morgan McNeil, Sr., Pres., will merge into one institution.

Md., Baltimore—New Idea Building & Loan Assn., 411 St. Paul St., capital \$500,000, incorporated by Phillip Union, Wm. Hoffman and others.

Md., Baltimore—Buddy Building & Loan Assn., 308 Equitable Bldg., capital \$500,000, incorporated by Robert Kanter, Charles Leyvey and others.

Md., Baltimore—Emerson Building & Loan Assn., 333 Equitable Bldg., capital \$1,000,000, incorporated by Albert Cohn, Henry I. Rosenberg and others.

Md., Baltimore—Dueber-Hampden Securities Corp., Calvert Bldg., incorporated by Denese Gara, Frank W. Morrow and others.

Md., Baltimore—Home Mortgage Co., Inc., 514 St. Paul St., capital \$100,000, chartered by Nicholas J. Maisel, Jr., Richard B. Pue and others.

Md., Baltimore—Convenient Building & Loan Assn., 443 Calvert Bldg., capital \$100,000, incorporated by Jacob Kres, Max Davis and others.

Md., Baltimore—Ben Franklin Building & Loan Assn., 348 Equitable Bldg., capital \$1,000,000, incorporated by Herbert Levy, Jacob Hartman and others.

Md., Baltimore—Earl Building & Loan Association, 111 N. Charles St., incorporated by Morris, Charles O. and Sidney Needle.

Md., Baltimore—Penn Mortgage Finance Co., 514 Munsey Bldg., capital \$100,000 incorporated by Benj. B. Snyder, Nathan Levin and others.

Mo., Aurora—Lawrence County Agricultural Credit Co., capital \$50,000, incorporated by J. W. Coleman, Aurora; F. A. Gibbons, of Miller, Mo., and others.

Mo., Kansas City—Franklin Savings & Loan Assn., capital \$1,000,000, incorporated by W. B. Henderson, C. S. Sutton and others.

Mo., St. Louis—Fred Emery & Co., capital \$100,000, incorporated by Fred Emery, 5595 Waterman Ave., S. G. Langston, 6181 Delmar St., and others.

Mo., St. Louis—Central States Finance Corp., incorporated by Nesbit Rochester, L. B. Porter and others.

N. C., Asheville — Mutual Securities Co.,

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

capital \$200,000, incorporated by Thos. R. Byrd, James G. Anderson and others.

Oklahoma, Ardmore—The First Natl. Bank of Ardmore, capital \$200,000, organized by: Leon Voorhees, Pres., Howard T. Vernon, Cashier.

S. C., Charleston—Peoples' Securities Co., capital \$150,000, incorporated with R. G. Rhett, Pres.; Jos. E. Jenkins, etc.

Tenn., Fountain City—Fountain City Bank, capital \$25,000, organized by: J. W. Williams, Pres.; R. L. Huff, 1st V.-P., B. C. Ogle and others.

Tex., Austin—Star Laundry and Cleaners, Inc., capital \$80,000, chartered by: R. C. Buchanan, D. E. Stone, H. C. Buchanan.

Tex., Canadian—Hood Abstract Co., incorporated by J. W. Sanders, S. J. Jennings and others.

Tex., El Paso—Bowie Investment Co., capital \$40,000, incorporated by John C. McNary, James A. Dick and others.

Tex., Fort Worth—H. A. Wittliff & Co., incorporated by C. P. Sandifer, H. A. Wittliff and others.

Tex., Fort Worth—Loan Star Investment Co., increased capital from \$10,000 to \$100,000.

Tex., Greenville—Fidelity Investment Corp., capital \$18,000, chartered by R. N. White, T. T. Herndon and others.

Tex., Houston—Texas Loan & Stock Co., incorporated by N. C. Doss, John W. Hornsby and others.

Tex., Mount Vernon—Franklin Building & Loan Assn., capital \$100,000, incorporated by C. R. Hill, B. C. Jones and others.

Tex., Waco—Waco Finance Co., capital \$250,000, incorporated by W. B. Brazelton, W. W. Woodson and others.

W. Va., Huntington—Citizens State Bank of Huntington, capital \$100,000, organized by Dr. G. C. Maulison, Pres., J. E. Stone, V.-P., A. E. McComas, Asst. Cashier. (Lately noted.)

New Securities

Ala., Attalla—School—City contemplates calling \$35,000 bond election. Address The Mayor.

Ala., Gordo—Water and Light—Town, H. B. Durrett, Sec., will sell Feb. 14, \$14,000 water and light and \$3500 5 1/2%, \$100 denom., school bonds.

Ala., Huntsville—School—City, F. L. Adams, Mayor, voted \$150,000 bonds. (Lately noted.)

Ala., Mobile—School—City, R. V. Taylor, Mayor, will sell Jan. 15 \$350,000 5%; \$1000 denom. bonds.

Ala., Selma—Paving—City, W. B. Hall, Mayor, sold \$50,000 bonds to Ward, Sterne & Co., Birmingham.

Ala., Tuscumbia—Club-House—Tennessee Valley Country Club will issue \$15,000 bonds for improvement of club-house.

Ala., Tuscaloosa—School—City will sell Jan. 8 \$350,000 of \$500,000 bonds authorized at a recent election. Address The Mayor.

D. C., Washington—Farm Loan—The Potomac Joint Stock Land Bank will issue \$500,000 5% bonds to help farmers of Va. and Md. Address Woodward Bldg., Washington, D. C.

Fla., Daytona—Municipal Improvement—City, L. E. Houck, Clk., sold \$670,000 bonds to the Merchants Bank & Trust Co., for \$647,756 and accrued interest.

Fla., Daytona Beach—School—Volusia County School Comms. will sell \$75,000 5 1/2% bonds, Jan. 10. (Lately noted.)

Fla., Eau Gallie—Road and Bridge—Board of Brevard County Comms. N. T. Froscher, Clk., will sell Jan. 8, 1924, \$120,000 6% bonds of Special Road and Bridge Dist. No. 10 \$1000 denom.

Fla., Fort Lauderdale—Road—Broward County, Everglades Dist., will vote on \$50,000 bonds. Address County Comms.

Fla., Fort Pierce—Ice Plant—City proposes bond issue for ice plant. Address The Mayor.

Fla., Miami—School—City will vote Dec. 24 on \$350,000 bonds to erect 3 schools and one addition. Address The Mayor. (Lately noted.)

Fla., Orlando—Public Improvements—City voted \$525,000 bonds, including indebtedness, water expansions and light facilities.

Fla., Sanford—City Hall—City will vote soon on \$75,000 bonds. Address The Mayor.

Fla., Tavares—Road and Bridge—Board of County Comms., T. C. Smith, Clk., will sell Jan. 21, \$105,000 6% bonds.

Fla., Sanford—Improvement—City will vote Jan. 11 on \$845,000 bonds to include the following: \$375,000 water-works, \$310,000 electric light plant and \$160,000 gas plant. Address The Mayor. (Lately noted.)

Fla., Sanford—Park and Sewerage—City sold \$160,000 5 1/2% bonds to Seasongood & Mayer, of Cincinnati, at par plus a premium \$875, equal to 100.54 on a basis of about 5.47%.

Fla., Tampa—Municipal Improvements—City will vote Feb. 12 on \$2,945,000 bonds; Chas. H. Brown, Mayor.

Fla., Wauchula—Road—Hardee County voted \$850,000 bonds. Address County Comms. (Lately noted.)

Ga., Albany—School and Sewer—City and Dougherty County will vote Jan. 21 on \$200,000 bonds including \$100,000 for city and \$100,000 county for high school for children of both places: the city will vote on same day on \$100,000 sewer bonds.

Ga., Atlanta—Mortgage—Public Service Comm., granted the Georgia Railway & Electric Co. of Ga. the right to issue \$348,000 refunding and improvement mortgage bonds.

Ga., Savannah—Warrants—State Supt., N. H. Ballard, will receive bids until Jan. 17, on \$3,000,000 bonds.

Ga., Wadley—School—Town voted \$55,000 bonds.

Ga., Thomasville—School and Sewer—City, H. J. MacIntyre, Mayor, sold \$155,000 4 1/2% bonds to Lowry Banking & Trust Co., of Atlanta, Ga., for \$152,070.50, at a rate equal to 98.11.

Ky., Paducah—School—Arcadia Graded School Dist., E. T. Proctor, appointed sales agent, will sell on Jan. 5, \$20,000 bonds.

Ky., Owensboro—Water Main Extensions—City, J. H. Hickman, Mayor, will sell Dec. 29, \$100,000 5% bonds. (Lately noted.)

La., Houma—Public Improvement—City sold \$60,000 5 1/2% bonds to companies as follows: \$20,000 Bank of Houma, \$20,000 Bank of Terrebonne & Savings Bank of Houma and \$20,000 Peoples' Bank & Trust Co. of Houma.

La., Jonesboro—Road—Louisiana Highway Comn., Reymond Bldg., Baton Rouge, La., will vote Jan. 9 on \$256,000 bonds.

Md., Frederick—Road—Frederick County Comms. contemplate \$300,000 bond issue. Address County Comms.

Md., Hyattsville—School—County will vote soon on \$300,000 high-school bonds, this includes \$125,000 Hyattsville High School, \$75,000 Maryland Park High School, \$10,000

Beltsville School (graded), \$15,000 Silver Hill School (graded), \$80,000 Laurel (graded) School and the remaining \$15,000 for a consolidated school in Oxen Hill Dist.

Md., Salisbury—Floating Debt—Pocomoke City contemplating \$55,000 bond election. Address County Comms.

Miss., Jackson—Paving and Sewers—City voted \$250,000 bonds. Address The Mayor. (Lately noted.)

Miss., Natchez—Municipal Building—City, Jno. F. Jenkins, Clk., will sell Jan. 8 \$60,000 5% bonds; \$1000 denom. (Lately noted.)

Miss., Yazoo City—Improvement—City sold \$43,500 5 1/2% bonds to the Bank of Yazoo City at par. (Lately noted.)

Mo., St. Louis—Public Buildings and Improvements—City, Louis Nolte, Comptroller, sold \$500,000 4 1/2 per cent. serial gold bonds to Roosevelt & Sons, New York City. (Lately noted.)

N. C., Clinton—Road and Bridge—Sampson County, J. B. Williams, Register of Deeds, will sell at public auction Jan. 4, \$70,000 5% bonds; \$1000 denom.

N. C., Durham—School—Durham County Comms., M. G. Markham, Clk., voted \$30,000 bonds in Bethesda Special Tax School Dist.

N. C., Durham—Municipal Improvement—City, C. B. Alston, Clk., will sell \$1,100,000 bonds next year, this includes \$300,000 street improvement, \$100,000 sewer in connection with street paving, \$600,000 street extension.

N. C., New Bern—School—Craven County, G. A. Farrow, Register of Deeds, sold \$165,000 bonds to John Nuveen & Co., of Chicago, Ill., at a premium of \$2801.50, equal to 101.57, on a basis of about 5.11%.

N. C., North Wilkesboro—City sold \$85,000 bonds, including water, electric light and power system, to Prudden & Co., Toledo, Ohio, at a premium of \$2976.

N. C., Pittsboro—Improvement—Town, D. L. Bell, Sec., will sell \$5000 bonds Dec. 31, including \$2500 electric light, \$1000 street sprinkler; \$1500 funding.

N. C., Star—School—Star School Tax Dist., E. H. Wood, Clk. of Board of County Comms., will sell \$60,000 6% bonds on Dec. 22.

Oklahoma—Road—State contemplates voting early in 1924 on \$75,000,000 bonds. Address State Highway Dept., Oklahoma City.

Tenn., Knoxville—School—City plans voting on \$1,000,000 bond issue. Address The Mayor.

Tenn., Greenville—School—City plans voting on \$100,000 high school bonds. Address The Mayor.

Tenn., Tullahoma—Street Improvement—City sold \$40,000 bonds to First Natl. Bank of Tullahoma at a premium of \$100, equal to 100.25.

Tex., Abilene—Road—Taylor County voted \$300,000 bonds. Address County Comms.

Tex., Dallas—City Hall—City sold \$65,000 5% bonds to Dunn & Carr, of Houston, at 98.28.

Tex., Alvin—Street Improvements—City will vote Jan. 12 on \$20,000 bonds; T. C. Edwards, Mayor.

Tex., Anderson—Road—Grimes County, Road Dist. No. 3, will vote Jan. 12 on \$200,000 bonds. Address R. M. West, County Judge.

Tex., Austin—Road—Travis County, George Matthews, Judge, will sell Jan. 12, 1924, \$1,500,000 5 1/2% bonds; \$1000 denom.

Tex., Cameron—Road—Milan County, Rockdale and Thorndale Dists. contemplate bond issues; A. F. Mitchell, County Engr., Cameron.

Tex., Colorado—Road—Mitchell County's \$650,000 bond election failed. (Lately noted.)

Tex., Edinburgh—Water—Hidalgo County Water Improvement Dist. No. 4 sold \$1,250,000 6% \$1000 bonds to J. L. Arlitt, Austin, Tex.

Tex., Floydada—Improvement—City will vote Jan. 22 on \$60,000 bonds, \$10,000 of this amount will be spent for enlargement of water works. Address The Mayor.

Tex., Greenville—Street Improvement—City did not sell \$100,000 5% bonds offered Dec. 4.

Tex., Highland Park—Town voted \$100,000 bonds to provide funds for additional schools. Address School Comms.

Tex., Hillsboro—Street Paving—City, Street Improvement Dist. No. 1, voted \$15,000 bonds. Address The Mayor.

Tex., Houston—Auditorium—City voted \$100,000 bonds. Address Mayor Holcombe.

Tex., Karnes City—Road—Karnes County, Road Dist. No. 3, voted \$125,000 bonds; D. O. Klingeman, County Judge. (Lately noted.)

Tex., Linden—Road—Cass County, Sam L. Henderson, Judge, failed to vote \$1,500,000 bonds.

Tex., Lubbock—Sewer and Water—It is reported that Bregg, Garrett & Co., of Dallas, bought \$75,000 sewer and \$50,000 water 5½% bonds at a premium of \$1600, equal to 101.28.

Tex., Malone—Water Works—Town voted \$40,000 6% bonds. Address The Mayor.

Tex., Nederland—School—County Comms., sold \$30,000 Nederland Independent School Dist. bonds to the Southern Securities Co., of New Orleans at a premium of \$1230, equal to 104.10.

Tex., Sweetwater—Road—Nolan County Road Dist. No. 1, A. S. Mauzey, Judge, sold \$600,000 5½% bonds to Kauffman, Smith, Emmitt & Co., of St. Louis, for par and accrued interest, premium \$7000.

Va., Dinwiddie—School—Dinwiddie County, John T. Hargrove, Clk. of County School interest not to exceed 5¾%.

Board, will sell Dec. 22, \$95,000 school bonds

Va., Richmond—Sewer, water, gas, general improvement—City sold \$3,275,000 4½% bonds, including: \$750,000 sewer, \$1,500,000 Shockee Creek, \$300,000 water, \$150,000 gas, \$575,000 general improvement, all \$1000 denom., to Merchants National Bank of Richmond, and Scott & Stringfellow; Eastbrook Co. and W. A. Harriman & Co., both of New York City, for \$3,203,000. (Lately noted.)

Va., Winchester—Sewer and Water—City, W. T. Barr, Treas., will sell Dec. 27 \$197,000 4½% bonds; \$1000 denom.

W. Va., Charleston—Road — Kanawha County, Union Dist., voted \$220,000 bonds; R. N. Moulton, County Clk. (Lately noted.)

Financial Notes

American Security & Trust Company increased capital from \$2,400,000 to \$3,400,000.

Elbert S. Miner, Erwin Miner and Ray Tull have purchased controlling stock in the Bank of Mount Moriah, Mo.

Southwest Savings & Loan Assn., Cape Girardeau, Mo., might increase capital from \$500,000 to \$800,000.

The Trust Company of Georgia will merge with the Atlanta Natl. Bank and the Lowry Bank & Trust Company, capital \$10,000,000.

The Union Mortgage Co. of Cleveland, Ohio, opened offices at 309 Bankers Trust Building, Knoxville, Tenn.; the company has over \$8,000,000 capital and surplus.

Waco Building & Savings Assn., Waco, Tex., increased capital from \$1,000,000 to \$3,000,000.

Trade Literature

Air Hoists and Core Ovens.

New editions of their air hoist and core oven catalogs have been published by the Whiting Corporation, Harvey, Ill., these being numbered respectively 169 and 170. Both of them are finely printed and distinctively illustrated, the pictures being accompanied by comprehensive matter of a descriptive nature together with tabulated data for the complete information of customers. Illustrations of actual installations of core ovens, air hoists and elevators show exactly how they are employed in various establishments.

Community House of Hopedale, Mass.

A recent issue of "Cotton Chats," published by the Draper Corporation, Hopedale, Mass., contains a number of pictures of the new Hopedale Community House, the gift of George A. Draper, to be the social and civic center of Hopedale residents and employees of the corporation, including those from towns around. Plans for the building were made by Edwin J. Lewis, Jr., of Boston, and the contract for its erection was let in 1922, to the Casper Ranger Construction Co., of Holyoke, Mass. On June 23 of this year the building was turned over of the trustees, the keys being presented at a formal opening, by Mrs. Helen Draper Taft, daughter of Mr. Draper, and received by Frank J. Dutcher of the Board of Trustees.

A New Type Screen for Sewage.

Bulletin No. 542 of the Link-Belt Company of Chicago and Philadelphia, is of interest to consulting and sanitary engineers. It describes and illustrates the Tark Screen, a new type of drum screen for the clarification of municipal and industrial sewage. This device was invented by a Link-Belt sanitary engineer who prior to designing it made a careful study of sewage disposal practice in the principal plants of both Europe and the United States. It is claimed that this improved screen is not only exceedingly effective but it is notably free from trouble and the need of repairs. Eight screens of this kind, with a combined capacity of 317,000,000 gallons daily, have been purchased for the city of Milwaukee.

Two Important Reference Books.

It is announced that on January 1 Hendricks Commercial Register, New York, heretofore owned by the Kelly Publishing Co., of London, Eng., will be taken over by MacRae's Blue Book Co., of Chicago. The Hendricks book, a pioneer in the line of general commercial reference volumes, has been published continuously for thirty-three years and in its present form it represents the consolidation of four publications. MacRae's Blue Book is also the result of merging four earlier publications. There will not, however, be any consolidation of the two present books, but each, it is stated, will be continued in its present form, with improved service to both users and advertisers.

Records of Tire Performances.

The McLaren Rubber Co., Charlotte, N. C., has issued two handsomely prepared booklets telling about the conspicuous advantages of "Autocrat" cord tires which are made in its factory there. One of these books is entitled "Selling Performance," and contains an exceedingly large number of

testimonials from users of these tires on a great variety of automobiles, omnibuses and trucks, and in an appendix the process of manufacturing the tires is pictured in detail. The other book is entitled "Over Western Trails With Autocrat Cords," and its story carries the reader through the scenic regions of the Pacific Coast. This also embodies testimonials. Both booklets are abundantly and entertainingly illustrated.

Electrical Engineering Achievements.

The engineering achievements of the Westinghouse Electric & Manufacturing Co., during the year 1923, are described in most interesting manner in a 10-page bulletin by H. W. Cope, assistant director of engineering of that corporation. The great broadening of the electrical field is impressively told in the numerous accounts of how the mysterious power is being extensively used here and there all over the world. The growth in the size of equipment is something astonishing, not to be comprehended by the layman without reading Mr. Cope's exceedingly informative article.

A Valuable Handbook.

A new "Handbook of Conveyor and Elevator Belting" has been issued by the Good-year Tire & Rubber Company, Inc., of Akron, Ohio. This is a publication of 64 pages which is really a manual and not merely another catalogue. It outlines principles of design and operation which apply to all belt conveyors and belt elevators which, it is remarked, if carefully observed, will insure to operators long and satisfactory service. The information contained in the book, it is stated, is thoroughly reliable as it is based upon actual practice and years of experience. Seldom, if ever, are two equipments exactly alike and in order to obtain the best possible results it is necessary to consider each installation as a problem apart and thus choose a belt just suited for its purpose. The "Handbook," with its detailed information and instruction concerning computations, with tables, etc., will enable users of belt conveyors and belt elevators to make selections. It is fully illustrated.

Catalog of Chemical Engineering.

The Chemical Engineering Catalog for 1923 is the eighth annual edition of that valuable and comprehensive publication, which serves various industries as follows: Cement, chemicals, coke by-products, drugs and medicines, dyestuffs, electro-plating, explosives, fertilizers, foods and beverages, gas, glass and ceramics, leather, metals and alloys, oils, paints and varnishes, petroleum products, paper and pulp, refractories, rubber, soap, sugar, textile finishing, toilet preparations, waste recovery and all others under chemical control. The book is a substantial volume of more than 1000 pages and is bound in rich-looking fabrikoid leather. Its contents consist of collected, condensed and standardized data of equipment, machinery, laboratory supplies, heavy and fine chemicals, and raw materials used in the industries employing chemical processes of manufacture. There is a classified index of these which will be found exceedingly useful. In addition to this there is a technical and scientific books section, cataloging and briefly describing a practically complete list of books in English on chemical and related subjects. The catalog is published by the Chemical Catalog Co., 19 East 24th St., New York. The price is \$5.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Interesting Exhibit for Chicago.

The Blaw-Knox Company's exhibit at the Good Roads Show in Chicago will include actual operation of a full-sized 65-ton "Batcherplant" (trussed bin type), and models of the 116-ton suspension type, duplex type and circular bin of the same machine; also a full sized $\frac{3}{4}$ -yard "Dreadnaught" clamshell bucket and models of "Single Line," "Speedster," and "Power Wheel," buckets, besides load test demonstration of Blaw-Knox road forms, and "Universal" forms for street, sidewalk, curb and gutter work. There will also be cement handling apparatus and models of 5-ton and 1 $\frac{1}{2}$ -ton truck turntables.

Interesting Convention of Sales Force.

The Triumph Electric Co. and the Triumph Ice Machine Co. recently held a two days' convention of their salesmen at the home offices in Cincinnati, Ohio, where they were made familiar with the important features of the Triumph motors, ice making machinery, and refrigerating equipment, this being of especial advantage to the new members of the sales force. A trip through the factory was made under the direction of Chief Engineers Lebevici and Williams, and the refinements and advanced mechanical features of the line for 1924 were explained and demonstrated. The expanded facilities for manufacturing large size motors up to 200 horse power were also inspected as well as the very complete service department. At a banquet President J. C. Hobart delivered an address describing the growth of the company since it began in 1892 and explaining its program for the new year. On the second day Vice President E. C. Morse, in charge of sales, outlined business plans for 1924.

Twenty-two-Ton Shovel Runs Up a River.

An exceedingly interesting utilization of one of their 22-ton $\frac{3}{4}$ -yard gasoline shovels is reported by the Pawling & Harnischfeger Co., Milwaukee, Wis. The Dells Paper & Pulp Co., Eau Claire, Wis., wanted to speed up excavation for a new dam where there is a high bluff on each side of a river and instead of dismantling the shovel and lowering it 70 or 80 feet to the point where it was to be used, it was run into the stream about a quarter of a mile below the dam site and then run under its own power to the coffer dam, this course being followed on the advice of an engineer sent by the manufacturers of the shovel. The river bottom is full of deep holes and ledges, but the machine ran over these latter obstacles and it sometimes ran into holes that could not be avoided, but after hours of work through swift water it reached the coffer dam. Another hour's work was required to reinforce planking and supports and then the shovel crawled over the dam and down into the hole 12 feet below, a total of only five and one-half hours and the services of three men having been necessary. Had the other course been followed, with dismantling and reassembling the machine, a week's time and much more labor would have been necessary. During its journey up the river it seemed at times as if the machine would be in serious difficulty but it acted like a duck diving and passed all bad points successfully.

Change of Business Connection.

D. J. McCormack, H. E. Popp and H. T. Porter, formerly connected with the hydraulic turbine department of the Wellman-Seaver-Morgan Company, Cleveland, Ohio, have accepted positions on the engineering and sales staff of the S. Morgan Smith Company, York, Pa., builders of water power equipment. Mr. McCormack and Mr. Popp are at the main office and works in York, and Mr. Porter is manager of the Smith branch office at 76 West Monroe St., Chicago, filling the vacancy caused by the recent death of John C. Temple.

New Warehouse Business.

The Fort Smith Warehouse Company, J. Herman Hunt, president and general manager, Fort Smith, Ark., recently bought a large building at the corner of Rogers Ave. and 2nd St., in that city and are conducting a merchandise warehouse business in the heart of the wholesale business district and with fine railroad switching facilities. Affiliated is the O. K. Transfer & Storage Co., with offices in the same building. Others interested in the company are: H. C. Read, vice-president; Roy M. Johnston, secretary and treasurer; J. H. Carnahan, J. L. Phillips and Henry P. Lyman, directors.

Fuel Oil Burning Equipment Orders.

The Bethlehem Shipbuilding Corporation, Ltd., Bethlehem, Pa., has completed shipment of their Bethlehem-Dahl fuel oil burning equipment to the new Walker Hotel, Washington, D. C., one of the largest hotels there and which will be opened March 1 next. Other installations of this equipment are also reported as follows: New store of Saks & Co., New York; A. N. Pierson Co., Hartford, Conn., this being a second installation for them; Overbrook Heating Co., Overbrook, (Philadelphia), Pa.; Syrup Products Co., Yonkers, N. Y.; Standard Bleacheries Co., Carlton Mills, N. J., this being a second installation for them; equipment for 16 boilers at the Philadelphia Reduction Plant; Equitable Life Insurance Building, New York City.

Important Building Construction Move.

The Building Products Company, of Toledo, Ohio, Cleveland, Columbus and Dayton, Ohio, has bought the good will and patents of the Hodges Adjustable Shores, manufactured in Cincinnati, and has also purchased the plant of the Milmine Iron & Steel Works, at Toledo, Ohio, to manufacture them upon a largely increased scale. This property covers an acre and a half of land with modern buildings and machinery and it has connection with two leading railroads. The Hodges Shore was developed by Jesse E. Hodges, formerly general superintendent of the Ferro Construction Co., of Cincinnati, it has been on the market for eight years and has, it is stated, annually shown a great increase in output. The building experience of the Building Products Company, a successful sub-contractor on concrete form construction work, led to experiments which resulted in the adoption of the Hodges device for all of their form work and also ultimately to the purchase of the patents. The Toledo plant will also be equipped to produce a large volume of fabricated steel.

New Representatives Appointed.

The Ansley Lumber Company, Tampa, Fla., has opened an office in the Graham Building at Jacksonville, Florida, with Ernest A. Hyde in charge thereof. The company has also appointed E. P. Carter, Hampton, S. C., to be its representative for the states of Virginia, North Carolina and South Carolina.

Two-Unit Portable Asphalt Plant.

The East Iron & Machine Co., of Lima, Ohio, manufacturers of the Merriman Railroad Asphalt Plant, are now putting on the market an entirely new type of two-unit portable asphalt plant. This is a small plant with large capacity. It is quickly and easily set up and it is loaded on one flat car for railroad shipment. The manufacturers state that this plant is absolutely complete in two units and includes boiler and steam melting kettles. There are no extra parts to ship or to handle in any way. The new plant, which is called the "Mosher," was designed and engineered by C. C. Mosher, general manager, who is also responsible for the many changes and improvements made on the Merriman plant during the last few years. It has a capacity of 1800 yards a day, a new type of drum which is marvellously efficient and a 9-foot mixer. A 75 horse power special quick steaming boiler supplies steam for the engines, the 4500-gallon steam melting kettles and the asphalt pump. The plant is equipped with oil burners under both the drum and the boiler and also with grates for coal burning, so that there may always be possible a choice of fuel. The engines are all direct drive. The plant may also be had with electric motor drive, if desired, but then a smaller boiler is used for steam heating. The plant will be represented with prints, pictures and specifications at the Good Roads Show in Chicago January 14 to 19.

Trip to Sawmills in Louisiana.

Fifty officers and salesmen of the Exchange Sawmills Sales Company, of Kansas City, recently completed a trip to their eight mills in Louisiana. They traveled in two Pullman cars with diner attached and stops were made at each mill, particular interest being shown in the new mill under construction for the Louisiana Long Leaf Lumber Co., one of the "Essco" mills, at Fisher. This plant will be of the Pacific Coast band type, using Allis-Chalmers machinery. A 52-inch gang saw is being installed for a larger output of flooring which the company is featuring. The carriage rig will handle a 56-inch log. Thrall & Shea of New Orleans are contractors for the mill. J. G. McDonough, of Eau Claire, Wis., demonstrated the McDonough grade marking machine for the visitors at the plant of the Forest Lumber Co., Oakdale. It stamps the grade on each piece of lumber and inks it at one impression. All of the "Essco" companies, it is stated, provide for their employees good schools, churches, lodge halls, hospitals, movie theaters, swimming pools, tennis courts, community centers, electric lights, running water, and sewer systems, and these many facilities help to solve the problem of high labor turnover which has disturbed many sawmill operations. Other mills of this organization than those mentioned are Louisiana Sawmill Co., Glenmora; and Louisiana Central Lumber Co., at both Standard and Clarks, La. Slagle and Lake Charles were also visited by the tourists. R. B. White is president and general manager of the Exchange Sawmills Sales Co.

The Experiment

Its Use and Abuse in Business Management

Experiment is the re-creating life-blood of Progress. It is necessary when confined to new and unsolved problems in business management and control. But too often Experimenting is only another word for "Guessing"—blind striving after the right system or practice which already exists and which experience has established as exact knowledge. In such cases experiment is a costly and wasteful pastime.

Progressive Business is wisely guided today by the known results from a mass of individual experiments. Where the results of such experiments fit its needs, Progressive Business accepts them and, by putting them into practice, contributes to progress.

The most practical and useful results of individual business methods and experience—all that is best in business management and control—are visualized thousands of times in the practice of Ernst & Ernst.

Ernst & Ernst eliminate unnecessary experiment and contribute to better business today a service of exact knowledge based on long and practical experience.

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YOUNGSTOWN
AKRON
CANON
DAYTON

DETROIT
GRAND RAPIDS
KALAMAZOO
PITTSBURGH
WHEELING
ERIE
CHICAGO
MILWAUKEE

MINNEAPOLIS
ST. PAUL
DAVENPORT
INDIANAPOLIS
ST. LOUIS
KANSAS CITY
OMAHA
DENVER

ATLANTA
NEW ORLEANS
DALLAS
HOUSTON
FORT WORTH
SAN ANTONIO
WACO

FEDERAL TAX OFFICE: 910 TO 918 MUNSEY BLDG., WASHINGTON, D. C.

Tidewater Power Company's Extensive Improvements.

In connection with the recent announcement of the Tidewater Power Co. of Wilmington, N. C. that its directors had authorized the installation of a new 6000-k.w. turbine electric unit, two additional 600 horse power boilers and other central station improvements involving an expenditure of \$360,000, besides the 1923 expenditure for improvements, the General Engineering & Management Corporation of New York, which supervises the operations of the Tidewater Power Co., writes the MANUFACTURERS RECORD:

"During the past year we have completed about 75 miles of 33,000-volt transmission line extending into the rich agricultural territory northwest of Wilmington. We have provided railway transportation for the new negro beach at Shell Island near Wilmington and have made a number of improvements and developments on Wrightsville Beach in connection with our interurban railway.

"We are now actively engaged on the installation of a 6000-kilowatt steam turbine in the Wilmington plant which will be in operation early in 1924. At St. Petersburg, Fla., where the operating company is a subsidiary of the Tidewater Power Co., we have made extensions and new installations in the distribution system approximating \$50,000 during the past year. We are also making arrangements for additional electric capacity in the central station at that city."

\$12,000,000 in Mineral Wealth from Georgia Soil in 1922.

Atlanta, Ga., December 20—[Special]—Nearly \$12,000,000 worth of minerals were extracted from the soil of Georgia during 1922, according to a report recently made public by the state board of geology. Brick and tile formed the largest single item, their value being estimated at \$4,141,688.

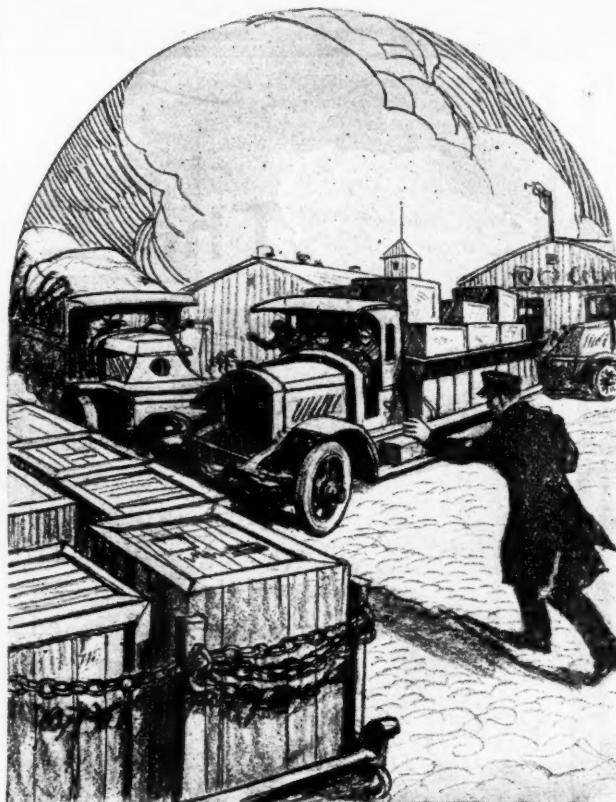
Other important products were marble, \$1,867,228 worth of which was quarried during the year; Portland cement and slate, with a valuation of \$1,184,480; granite, worth \$1,057,823, and Fuller's earth and manganeseiferous ores, worth approximately \$986,000.

More than two-thirds of all the Fuller's earth used in the United States in 1922 came from Georgia, two plants producing over 6000 tons during the period. More than 8000 pounds of sheet mica were mined in 1922, and over 160,000 tons of limestone being used almost exclusively for agricultural purposes.

A complete list of minerals mined during the year includes asbestos, barytes, bauxite, clay, coal, Fuller's earth, gold, granite, iron, limestone, manganese ores, marble, mica, Portland cement, silver and slate.

Official Data About Four Seaports.

A book of 374 pages is Port Series No. 4 on the port of Philadelphia, Pa., including Camden, N. J., Chester, Pa., and Wilmington, Del. It was prepared in the office of the Chief of Engineers by the Board of Engineers for Rivers and Harbors of the U. S. War Department, in co-operation with the Bureau of Research of the Shipping Board. This book, just issued, is one of a series of reports covering all of the important seaports of the United States, of which No. 1, on Portland, Me.; No. 2 on Boston, Mass., and No. 3 on Mobile, Ala., were previously published. The remaining numbers are to follow soon. These reports present detailed information of practical value to vessel operators, producers, manufacturers, importers, exporters and all other persons having occasion to ship goods through our ports. The office of the Board of Engineers for Rivers and Harbors and Harbors is at Washington.



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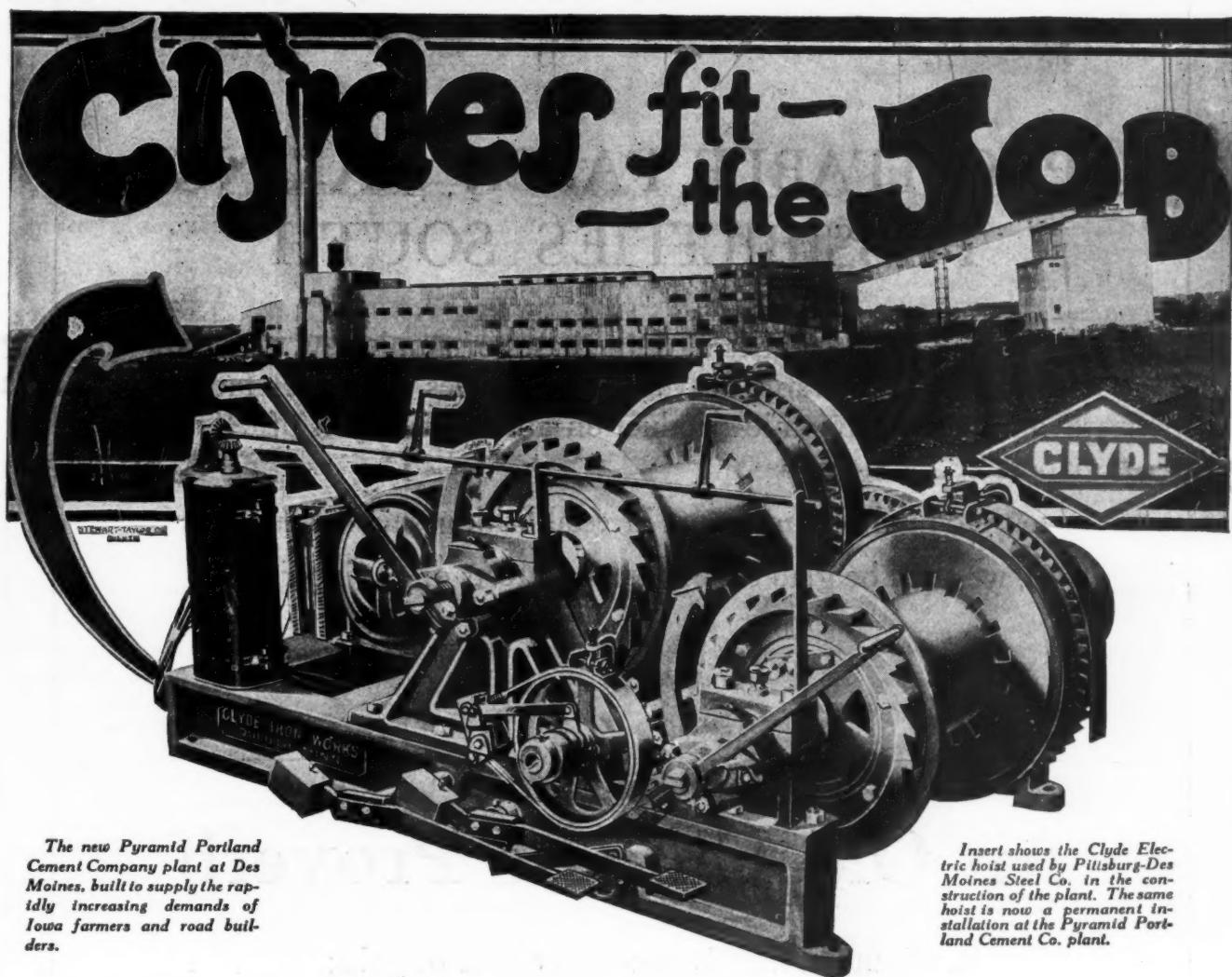
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Due to the easy portability of the smaller units, many firms are utilizing a single hoist for three or four different purposes. In the plant shown above, the two-drum Electric took an important part in the construction work. When active operation was started, it was given a steady job delivering materials.

Clyde Quality has become the recognized standard of the world. Thoroughly tested principles of construction, carefully selected materials and highly specialized workmen unite for the perfection of the product.

A Repeat Order is Built into Every Clyde Hoist.

The Clyde Corps of Engineers is at your service to help solve any hoisting problem, while the home office or any branch is ready to supply you details of any Clyde unit.

You'll take Pride in your Clyde.



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Is your community interested in establishing such an industry? If so, we shall be glad to suggest architects or engineers.

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An Old Chinese Proverb

A minute of time is worth an ounce of gold;
An ounce of gold cannot buy a lost minute;
Gold can be found somewhere; lost time nowhere.

There is only one way to insure the golden minutes of industry—buy machinery of Superior Quality.

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We build paper making machinery, centrifugal pumps, auto-claves, friction clutches, river steamers, tug boats and barges.

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issued by companies with long records of substantial earnings.

We extend the facilities of our organization to those desiring detailed information or reports on any of the companies with which we are identified.

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MARINE BANK & TRUST COMPANY

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General Banking - Domestic and Foreign
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WE BUY MUNICIPAL BONDS

We are interested in the purchase of Southern Municipalities including road, school, county, drainage and levee bonds.

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Specialist in Examination of
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We Buy Bonds

and invite inquiries from municipalities and contractors. We deal in city, county, district, school, road, lighting, water works and other municipal issues.

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We are interested in the purchase of first mortgage bond issues covering business property, hotels, apartment houses, etc., in amounts of \$50,000 and upwards. Entire issues city, county and district bonds purchased.

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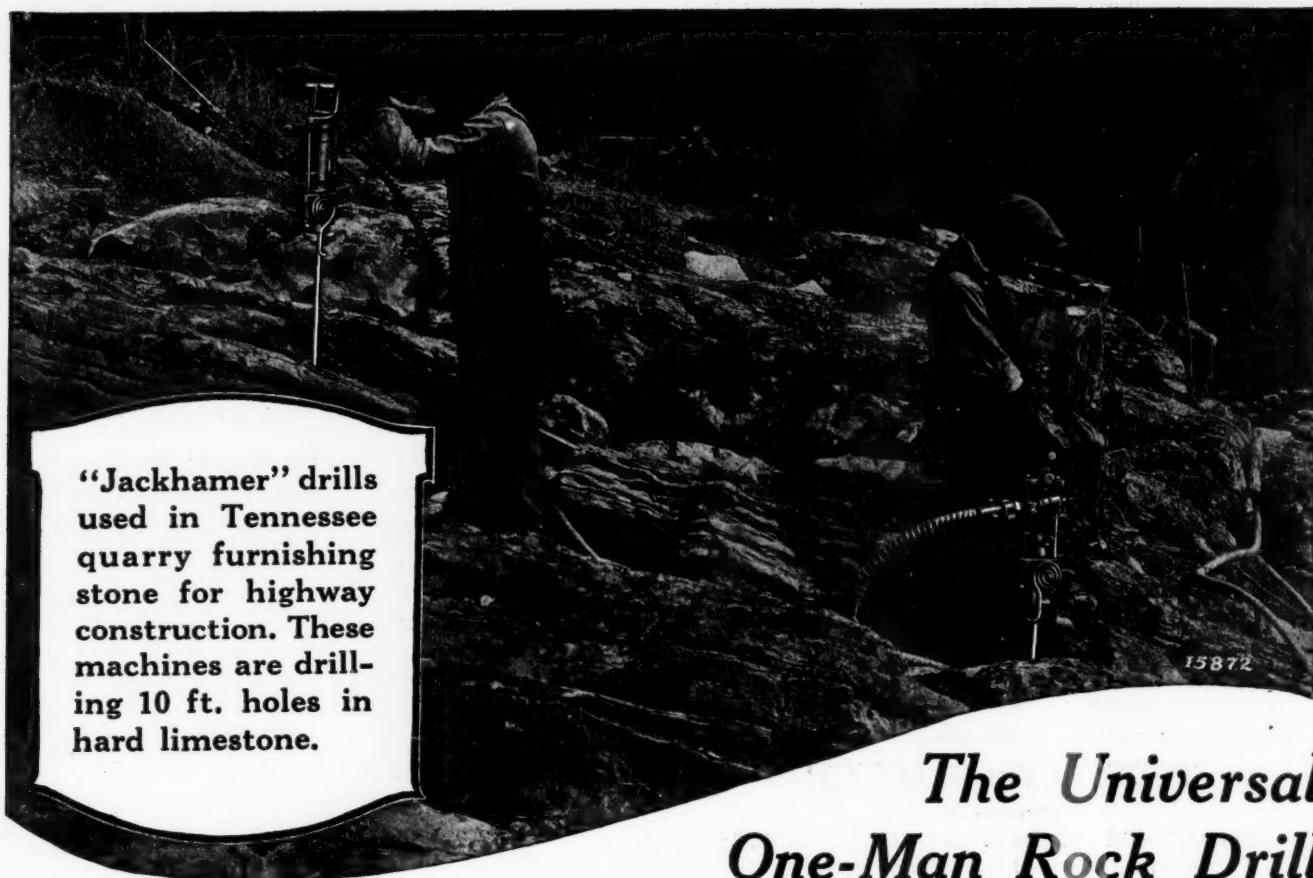
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A "Jackhamer" is the rock drill for all-around work. No contractor's equipment is complete without, at least, one of these machines.

One man can operate and work the "Jackhamer." He can run the drill wherever he can get a foot hold, and drill holes at any angle. The "Jackhamer" rotates its drill steel and cleans the hole of the cuttings.

Bulletin 4046 contains a detail description of the construction of the "Jackhamer" and of the work which it can do. Send for a copy now.

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274-JD

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

Bids close January 10, 1924.

U. S. Engineer Office, Vicksburg, Miss.: Proposals will be received here until noon, January 10, 1924, for furnishing and delivering 2 steel maneuver boat hulls. Information on application.

Bids close December 29, 1923.

PROPOSALS for construction of United States Veterans Hospital at Livermore, California will be opened at 11 A. M. on December 29, 1923, instead of December 22, 1923, as advertised under date of November 17, 1923. Frank T. Hines, Director, U. S. Veterans Bureau.

Bids close December 27, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., Nov. 23, 1923—SEALED PROPOSALS will be opened in this office at 3 P. M., Dec. 27, 1923, for the construction of the United States Post Office and Court House at Paris, Texas. The drawings contemplate a one-story and basement building approximately 109 by 88, brick and stone facing, fireproof except roof. Drawings and specifications may be obtained from the Custodian of the Post Office at Paris, Texas, or at this office, in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

Bids close January 1, 1924.

\$25,000 6% School Bonds

Bushnell, Fla.

NOTICE IS HEREBY GIVEN, That the undersigned Clerk of the Board of Public Instruction in and for Sumter County, Fla., will receive bids up to noon on the 1st day of January, 1924, at his office in the Court House in Bushnell, Fla., for Twenty-five \$1000.00 Bonds of Special Tax School District No. 4 of Sumter County, Fla., said bonds dated September 1, 1923, bearing interest at the rate of 6% per annum, interest payable semi-annually, payable both interest and principal at the Hanover National Bank, New York City, said bonds maturing as follows:

Five of said bonds being due and payable September 1, 1933, and one of said bonds on the 1st day of September of each and every year thereafter, up to and including September 1, 1953.

The bidder is required to deposit 1% of his bid as evidence of good faith.

The Board reserves the right to reject any and all bids.

(SEAL) W. T. EDDINS,
Secretary Board Public Instruction, Sumter
County, Fla.

Bids close January 15, 1924.

**\$350,000 Thirty-year Public
High School Bonds**

Mobile, Alabama.

The Public High School Bonds of the City of Mobile, Alabama, for \$350,000.00 are hereby offered for sale; said bonds to be dated March 1st, 1924, payable 30 years after date, and each bond to be for \$1000 with interest coupons at the rate of five per cent. per annum, payable semi-annually, and said bonds and coupons to be payable at the American Exchange National Bank of New York City.

Sealed bids for said bonds to be addressed to S. H. Hendrix, Esq., Clerk of the Board of City Commissioners, Mobile, Alabama; said bids to be received up to and including Tuesday, January 15th, 1924, at 12.00 o'clock noon thereof, at which date and hour said bids will be publicly opened in the Council Chamber in the City Hall, Mobile, Alabama, and on said date said bonds shall be awarded.

Each bid shall be accompanied by a certified check for \$1000.00, payable to the City of Mobile, to be returned, if bid not accepted. No bid to be for less than the face value of said bonds and accrued interest thereon up to date of delivery of bonds. The right is reserved by the City of Mobile and its Board of Commissioners to reject any and all bids.

R. V. TAYLOR,
Mayor, Mobile, Alabama.

**RATE: 35 cents per line per insertion.
PUBLICATION DAY: Thursday.
FORMS CLOSE 4 P. M. Monday.
DAY LETTER: When too late to send copy by mail to reach us by 4 P. M. Monday, forward by day letter.**

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest. The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—35 cents per line per insertion.

Bids close January 21, 1924.

**\$40,000 6% Road and Bridge
Bonds**

Tavares, Fla.

Notice is hereby given that the Board of County Commissioners of Lake County, Florida, will receive sealed proposals at the office of the Clerk of said Board at Tavares, Florida, until 12.00 A. M. on January 21st, 1924, for the purchase of all or any part of \$40,000 of the Bonds of Special Road and Bridge District Number Three of Lake County, Florida, in the denomination of \$1000 each dated the first day of July, 1923, and maturing on July 1st, 1933, with interest at 6% per annum payable semi-annually on January 1st and July 1st, principal and interest payable at the American Exchange National Bank of New York in gold. The Bonds having been validated by a Decree of the Circuit Court of Lake County, Florida. Bids are desired on forms which will be furnished by the undersigned and must be accompanied by a certified check upon an incorporated Bank or Trust Company payable to the order of the Chairman of the Board of County Commissioners for 2% of the par value of the Bonds Bid for and must be enclosed in sealed envelopes endorsed, "Bids for Bonds of Special Road and Bridge District Number Three of Lake County, Florida." And addressed to the Board of County Commissioners of Lake County, Florida, in care of T. C. Smyth, Clerk, Tavares, Florida. The right is reserved to reject any and all bids. The legality of the Bonds will be examined by Messrs. Caldwell & Raymond, of New York, whose approving opinion will be furnished to the purchaser without charge.

The Bonds will be delivered at Tavares, Florida or in New York, New York, as the purchaser may elect at 12.00 noon on the 4th day of February, 1924, or as soon thereafter as the Bonds may be prepared.

For further information address the undersigned, Clerk, or J. W. Hunter, County Attorney at Tavares, Florida.

T. C. SMYTH, Clerk,

Board of County Commissioners, Lake
County, Florida.

Bids close January 21, 1924.

**\$65,000 6% Road and Bridge
Bonds**

Tavares, Fla.

Notice is hereby given that the Board of County Commissioners of Lake County, Florida, will receive sealed proposals at the office of the Clerk of said Board at Tavares, Florida, until 12.00 A. M. on January 21st, 1924, for the purchase of all or any part of \$65,000 of the Bonds of Eustis-Tavares Special Road and Bridge District of Lake County, Florida, in the denomination of \$1000 each dated the first day of July, 1923, and maturing on July 1st, 1933, with interest at 6% per annum payable semi-annually on January 1st and July 1st, principal and interest payable at the American Exchange National Bank of New York in gold.

The Bonds having been validated by a Decree of the Circuit Court of Lake County,

Florida. Bids are desired on forms which will be furnished by the Undersigned and must be accompanied by a certified check upon an incorporated Bank or Trust Company payable to the order of the Chairman of the Board of County Commissioners for 2% of the par value of the Bonds Bid for and must be enclosed in sealed envelopes endorsed, "Bids for Bonds of Eustis-Tavares Special Road and Bridge District of Lake County, Florida." And addressed to the Board of County Commissioners of Lake County, Florida, in care of T. C. Smyth, Clerk, Tavares, Florida. The right is reserved to reject any and all bids. The legality of the Bonds will be examined by Messrs. Caldwell & Raymond, of New York, New York, whose approving opinion will be furnished to the purchaser without charge.

The bonds will be delivered at Tavares, Florida, or in New York, New York, as the purchaser may elect at 12.00 noon on the 4th day of February A. D., 1924, or as soon thereafter as the Bonds may be prepared.

For further information address the undersigned, Clerk, or J. W. Hunter, County Attorney at Tavares, Florida.

T. C. SMYTH, Clerk,
Board of County Commissioners, Lake
County, Florida.

Bids close January 12, 1924.

\$1,140,500 5% Special Road Bonds

\$34,000 5½% Special Road Bonds

Austin, Texas.

\$1,140,500 Travis County Special Road Bonds dated February 1st, 1924, denomination \$1000, 5% interest, payable semi-annually, maturing serially. Various amounts, one to twenty-eight years; principal and interest payable at Seaboard National Bank, New York City.

Bids received up to January 12, 1924, at 10 o'clock A. M. Certified or cashier's check for \$10,000, payable to county Judge to be forfeited as liquidated damages if successful bidder fails to carry out his contract. Bids opened at hour mentioned by Commissioner's Court, in the Court House at Austin, Texas.

Also at the same time and place \$34,000 Travis County, Texas Special Road Bonds, dated January 1st, 1924, denomination \$500 5½% interest, payable July and January 1st, each year, maturing serially. Various amounts, one to twenty-nine years. Certified or cashiers check as above for \$2000.

Full and complete detailed statement of the financial condition of Travis County, Texas, and full description of the above bonds furnished promptly upon application to the undersigned.

J. A. BELGER,
County Auditor.

Bids close January 8, 1924.

\$100,000 5½% Town Bonds

Farmville, Va.

Sealed proposals will be received by the Undersigned, the Chairman of the Finance Committee of Town of Farmville, Va., until 3 o'clock P. M. on January 8, 1924, for purchase of \$100,000 par value of bonds of said town, of which amount \$50,000 par value will be known as ELECTRIC LIGHT IMPROVEMENT BONDS, SERIES H., and \$50,000 par value will be known as STREET IMPROVEMENT BONDS, SERIES H. All of said bonds will bear interest at 5½ per cent per annum, payable semi-annually, on January 1st and July 1st, said bonds to be in denominations of \$1000 each, bearing date of January 1, 1924, and payable 20 years after date, at the Hanover National Bank of the City of New York.

All bids must be accompanied by a certified check for \$1000, payable to the Town of Farmville, Va., said bids to be opened at the regular meeting of the Town Council on the 8th day of January, 1924, at 8 o'clock P. M.

The Council reserves the right to reject any and all bids, in whole or in part.

(Signed) E. S. SHIELDS, Chairman of Finance Committee of Town of Farmville.

PROPOSALS

December 27, 1923.
Manufacturers Record.

Bids close January 10, 1924.

\$75,000 Municipal Bonds

Summerville, S. C.
 \$75,000, 20-year coupon Bonds of School District No. 18 (Summerville), of Dorchester County, S. C., denomination \$1000; bonds and coupons payable in New York. Bids solicited for entire, or part of, issue on basis of 5, 5½ and 6 per centum per annum, payable semi-annually. Bids to be submitted by 12 M. on January 10, 1924, to Edmund W. Simons, Chairman of Board of Trustees, Summerville, S. C. No bid considered unless accompanied by certified check for \$500, to be returned unsuccessful bidders, applied account successful bidder, and forfeited on non-compliance. Right reserved by Trustees to reject any and all bids.

Bids close January 15, 1924.

Road Construction

OFFICE OF THE STATE ROAD DEPARTMENT.

Tallahassee, Fla., December 20, 1923. Sealed proposals will be received at this office until 12 o'clock noon on the 15th day of January, 1924, for the construction of the following sections of road:

Hard surfacing (Plain cement concrete, asphaltic concrete, sheet asphalt and Bituminous Macadam on Rock Base and 8" rock base only) including concrete curb and gutter.

Proj. No.	Road No.	County	Length
572	13	Bradford	7.3
594	13	Bradford	9.1

Hard surfacing (Plain cement concrete, asphaltic concrete, sheet asphalt and Bituminous Macadam on Rock Base and 8" rock base only) including drainage structures and concrete curb and gutter.

607 13 Bradford 5.1

All work to be done in accordance with plans and Specifications of the State Road Department.

A certified check or bidder's bond made payable to the Chairman of the State Road Department in the sum of five (5%) per cent of the amount bid, must accompany each proposal.

Plans may be examined at this office or at the offices of the Division Engineers, or may be obtained upon application to this office for the sum of \$5.00 each, which amount will be refunded if plans are returned in good condition by a Bonafide bidder within 10 days after bids have been received.

The right is reserved to reject any or all bids.

H. B. PHILIPS,
 J. L. CRESAP, Chairman.
 State Highway Engineer.

Bids close January 18, 1924.

Channel Construction

ENGINEERING DEPARTMENT

Parish of Calcasieu, Louisiana.

Lake Charles, La., December 15, 1923. Sealed bids will be received by the Police Jury of the Parish of Calcasieu, Louisiana, until noon, Friday, January 18th, 1924, in the Police Jury Room, Court House, Lake Charles, Louisiana, and then and there publicly opened, for the construction of a Navigation Channel 30 feet deep by 125 feet wide at the bottom, from Lake Charles to the Sabine River.

SECTION 3.

The construction of a channel 30 feet deep and 125 feet wide at the bottom, from Station 714, East along the Intracoastal Canal, to Station 580. A distance of 2.54 miles. Approximately 2,020,000 cubic yards of earth to be moved.

This work is along the present Intracoastal Canal, which on this Section is 8 feet deep and 40 feet wide on the bottom. The Atlantic, Gulf and Pacific Dredging Company have a contract with the War Department to deepen and widen this part of the Intracoastal Canal to 12 by 90 feet; their dredge "Texas" is working about Station 760 at present and will pass Station 714 going East between January 1st and 10th.

From Station 714, East to Station 680, the land is marsh, elevation +10 to +2.0. The Gum Cove Ridge lies between Station 680 and 580, elevation +2.0 to +12.0. Average stage of water +1.2. All depths and elevations refer to Mean Low Gulf Datum.

SECTION 5.

The construction of a channel 30 feet deep and 125 feet wide at the bottom, from Station 58 on the Intracoastal

Canal, West to Station 322. A distance of 5 miles.

Approximately 3,480,000 cubic yards of earth to be moved.

This work is along the present Intracoastal Canal, which has been deepened and widened from Station 58 to 120, to 12 feet deep by 90 feet wide on the bottom. From Station 120 to 322 the Canal is 6 feet deep by 40 feet wide on the bottom, with a Pilot cut from Station 176 to 322, 12 feet deep by 40 feet wide on the bottom, along the South side of the old ditch. The Government dredge "Blackwater" is at present at Station 120 working West completing the Canal to 12 feet depth and 90 feet width. The Blackwater will probably pass Station 176 about February 1st. From Station 58 to 90 is a low ridge; Elevation +2.0 to +7.0; from Station 90 to Station 322 is a Black Grass Marsh, with knolls; Elevation +1.0 to +3.0. Average stage of water +1.2. All elevations and depths refer to Mean Low Gulf Datum.

Every bid shall be accompanied by a certified check in an amount equal to five per cent. (5%) of the amount of the bid, payable to the Treasurer of Calcasieu Parish, which check shall be forfeited to the Parish should the bidder to whom such contract is awarded fail to enter into the contract required within ten (10) days after notice to do so from the Police Jury of Calcasieu Parish.

The Police Jury reserves the right to reject any or all bids.

V. R. REEVES,
 President, Police Jury.
 FRED SHUTTS,
 Parish Engineer.

Bids close January 19, 1924.

Water Works

Charlottesville, Va.

Sealed proposals will be received by the City Manager at his office, Charlottesville, Va., until 11 o'clock A. M., January 19th, 1924, for the construction of approximately 12 miles of 18-inch Cast Iron Pipe Line and 700 linear feet of 4x6 Tunnel, a Diversion Dam, Grit Chamber and Regulating works. Pipe and Specials will be furnished by the City of Charlottesville, f.o.b. cars. Plans and specifications can be seen on or after January 1, 1924, at the office of the City Manager, Charlottesville, Va., and at the offices of the Engineers, Fuller and McClinton, 170 Broadway, New York City, or Lee H. Williamson, National Bank Building, Charlottesville, Va. Proposal blanks will be forwarded upon application to the City Manager. Construction Bond to the amount of the contract will be required and each proposal must be accompanied by a certified check for \$10,000.00.

Arrangements for inspection of the line can be made at the office of Lee H. Williamson, National Bank Building, Charlottesville, Va.

The right is reserved by the City Manager to reject any or all bids.

BOYD A. BENNETT, City Manager.

Bids close January 10, 1924.

Water and Sewerage Systems

Conover, N. C.

Sealed proposals will be received by the Mayor and Board of Aldermen of the Town of Conover, N. C., until 2.00 o'clock P. M. Thursday, January 10, 1924, for the construction of Water Supply and Sewerage Systems.

The work consists of the construction of a water supply line from Newton, N. C., to Conover, and a distribution system; also a sewerage system of approximately four miles of sanitary sewers varying in diameter from six to ten inches, with all necessary appurtenances.

Plans will be on file and may be examined at the office of the Mayor of Conover, and at the offices of Spoon & Lewis Engineers, 407-8-9 American Bank Bldg., Greensboro, N. C., after January 1, 1924. After that date Plans, Specifications, Bid and Contract Forms may be secured from the Engineers upon receipt of \$10.00, of which \$5.00 will be returned to bona fide bidders upon return of the plans in good condition to the Engineers.

Each bid must be accompanied by a certified check or bidder's bond in the sum of \$2000.00 payable to the Treasurer of the Town of Conover, N. C.

Proposals will be opened publicly with the usual rights reserved.

CONOVER BOARD OF ALDERMEN,
 C. R. Brady, Mayor,
 SPOON & LEWIS, Engineers,
 Greensboro, N. C.

Bids close January 10, 1924.

Water Works and Sewers

Asheboro, N. C.

Sealed proposals will be received by the Town Council of Asheboro, N. C., at Town Clerk's office up to 2 P. M., January 10, 1924, for water works improvements and sanitary sewer extensions.

The work embraces the following approximate quantities:

- 500,000 gallon filter.
- Repairs to old filter.
- 30,000 gallon steel tank on 40-foot tower of steel.
- 250,000 gallon concrete reservoir.
- 250 G. P. M. centrifugal pump.
- 750 G. P. M. centrifugal pump.
- 200-Feet 12-in. cast iron pipe.
- 1800-Feet 10-in. cast iron pipe.
- 1600-Feet 8-in. cast iron pipe.
- 26082-Feet 6-in. cast iron pipe.
- 13-Tons special castings.
- 3-12-in. gate valves.
- 2-10-in. gate valves.
- 5-8-in. gate valves.
- 36-6-in. gate valves.
- 45-Valve boxes.
- 42-Fire hydrants.
- 28765-Feet 8-in. sewers with appurtenances.
- 3300-Feet 10-in. sewers with appurtenances.
- 2-Septic tanks.

Plans and specifications are on file with Town Clerk and Engineers. Copies of specifications can be obtained from Engineers on deposit of \$5.00 which will be returned to bona fide bidders.

Set of plans can be secured from Engineer, on payment of \$25.00.

Certified check for 5 per cent of the amount of bid must accompany bid.

The right is reserved to reject any or all bids.

ARTHUR ROSS,
 Mayor.
 JAMES N. NEELY,
 Clerk.

J. B. McCRARY ENGR. CORP.
 Engineers.

Bids close January 3, 1924.

Sewer Construction

McKenzie, Tennessee.

Sealed bids for the construction of a vitrified pipe sewer system and settling tanks for the City of McKenzie will be received by the Mayor and City Council at the office of H. C. Bryant, City Clerk, until 2 P. M., January 3, 1924, at which time and place they will be opened and publicly read.

The approximate quantities are as follows:

- 38,596 Linear feet 8" Sewers
- 4620 Linear feet 10" Sewers
- 900 Linear feet 12" Sewers
- 1650 Linear feet 15" Sewers
- 134 Manholes
- 12 Flush Tanks
- 588 Linear feet vertical risers
- 2 Reinforced concrete settling tanks

Plans and specifications may be examined at the office of H. C. Bryant, City Clerk at McKenzie, or at the office of the Engineer, or a copy may be obtained from the Engineer upon receipt of a deposit of \$15.00, of which amount \$10.00 will be refunded when the plans and specifications are returned in good condition. If additional information is required, address the Engineer.

The right is reserved to reject any and all proposals and to waive informalities. The contractor will be paid cash on monthly estimates amounting to 85% of the work done.

All proposals and bids must be accompanied by a certified check drawn on a responsible bank or trust company, and made payable to H. C. Bryant, City Clerk, for a sum of not less than 5% of the amount of the proposal; or a bidder's bond for the same amount by a surety company authorized to do business in the State of Tennessee, will be accepted. The successful bidders will be required to furnish a performance bond in the sum of 50% of the contract price.

H. C. BRYANT,
 City Clerk.
 B. H. KLYCE, Engineer,
 506 4th and 1st Natl. Bank Bldg.,
 Nashville, Tenn.

Date of opening Bids on the New Hanover County Court House Annex, extended from December 21st, 1923, until January 10th, 1924.

Addition to Court House

Wilmington, N. C.

Sealed bids will be received by the Board of County Commissioners of New Hanover County, until 10:00 o'clock A. M., Thursday, January 10th, 1924, at the office of the County Commissioners in the Court House at Wilmington, N. C., for the construction, erection and completion of a four-story, steel and reinforced concrete building 64x118 feet, on the east side of the present County Court House, facing on Princess Street, in accordance with plans and specifications prepared by Leslie N. Boney, Architect, Wilmington, N. C.

Each bid must be accompanied by a certified check for 3% of the amount of bid, made payable to J. A. Orrell, County Auditor of New Hanover County same to be forfeited in the event of the failure of the contractor to whom the contract may be awarded to sign contract and give Surety Bond in some reputable Surety Company satisfactory with the Architect and County Commissioners for the proposed building, within ten days after the acceptance, by the County Commissioners, of the bid.

Plans and specifications may be had upon application to the Architect. Each application for the general contractors plans must be accompanied by certified check for \$25.00, heating, plumbing and electric wiring plans \$15.00, made payable to L. N. Boney, Architect. Said checks will be held as a deposit until plans and specifications have been received, in good condition at the Architect's office within ten days after date of opening bids.

The Board reserves the right to hold all bids and bidders' checks for a period of four days. The checks of unsuccessful bidders will be returned on the day the contract is awarded. The check of the successful bidder will be held until satisfactory Bond, as required by Law, has been given.

The Board also reserves the right to accept any or reject any and all bids submitted.

NEW HANOVER COUNTY BOARD OF COMMISSIONERS.

December 21, 1923.
LESLIE N. BONEY, Architect.

Bids close January 14, 1924.
County Home

Lumberton, N. C.

Sealed proposals will be received by the Board of County Commissioners of Robeson County, N. C., at their office in the city of Lumberton, N. C., at noon January 14, 1924, for the erection and completion of a group of buildings which in their entirety will constitute a County Home near Lumberton, N. C.

Plans and specifications may be seen and estimates made without costs at the following places:

Office of Wilson & Berryman, Columbia, S. C.

Office of Wilson & Berryman, Wilson, N. C.

Office of Builders' Exchange, Columbia, S. C.

Chamber of Commerce, Raleigh, N. C.
Chamber of Commerce, Greensboro, N. C.
Chamber of Commerce, Charlotte, N. C.
Office of E. J. Britt, County Attorney, Lumberton, N. C.

They may also be obtained upon application to Wilson & Berryman, Columbia, S. C., on deposit of Twenty-Five (\$25.00) Dollars as a guarantee that they will be returned in good condition and without expense within five (5) days of the date set for the submission of bids, and that a bona-fide bid will be made. When these conditions are met, the deposit will be returned, otherwise it will be retained by the Architects.

Sub-contractors and material men may secure such portions of the plans and specifications as they may desire at current blue print rates.

Each bid must be accompanied by a certified check or bid bond for Two Thousand \$2000.00 Dollars as a guarantee that if accepted, the contractor will enter into a contract and give bond in the form of the American Institute of Architects (3rd Edition) in an approved surety company for an amount not less than one-third of the contract price, covering the contract and its guarantees for a period of twenty-seven (27) months.

The right is reserved to reject any or all bids.

JNO. W. WAREL, Chairman.

Bids close January 8, 1924.

Court House and Jail Equipment

Wilson, N. C.

Sealed bids will be received by the Board of Commissioners of Wilson County for the erection of a Court House, and at the same time for the jail equipment, which said bids shall be separate.

All bids must be filed with Henry B. Lane, Chairman of the Board of Commissioners of Wilson County, on or before 10 o'clock A. M. Tuesday, January 8, 1924. All bids will be opened and considered in the office of the Board of County Commissioners of Wilson County at the Court House in Wilson, N. C. on Tuesday, January 8, 1924.

Copies of plans and specifications for the Court House and jail equipment may be obtained from Mr. Fred A. Bishop, Architect, Petersburg, Virginia, upon the deposit of Fifty Dollars (\$50.00), guaranteeing the return of the plans and specifications and the submission of a bid, which deposit will be forfeited upon non-compliance with the terms hereof. Each bidder will be required to deposit a certified check upon some Bank or Trust Company in the State of North Carolina, for \$2500.00, as a guarantee of the execution of the contract and the giving of the bond as required.

The successful bidder will be expected to execute the contract and give the bond as required by the laws of the State of North Carolina, within ten (10) days from the award.

The right to reject any and all bids is reserved.

This December 3, 1923.

HENRY B. LANE, Chairman,
Bd. of Comrs. of Wilson County,
FRED A. BISHOP,
Petersburg, Va., Architect.

Water Works Material

Conover, N. C.

The Town of Conover, N. C., will receive through its Engineers, Spoon & Lewis, prices on the following Water Works materials:

Cast Iron Pipe and Specials
Flow Meter
Gate and Check Valves
Hydrants
Elevated Tank

Manufacturers or agents wishing to submit prices are requested to get in touch with the Engineers, 407 American Bank Bldg., Greensboro, N. C., before January 8, 1924.

CONOVER BOARD OF ALDERMEN,
C. R. Brady, Mayor.
SPOON & LEWIS, Engineers,
Greensboro, N. C.

Bids close January 10, 1924.

Land Dredge

OFFICE OF THE COMMISSIONERS OF CHATHAM COUNTY AND EX-OFFICIO JUDGES.

Savannah, Georgia, December 13, 1923.

Sealed proposals will be received by the Commissioners of Chatham County and ex-officio Judges until the 10th day of January, 1924, at 12:30 P. M., and publicly opened by them at their office at that time for furnishing the County with One (1) Internal Combustion Land Dredge equipped with not more than three-quarter cubic yards capacity bucket, operated by at least fifty horse power Internal Combustion Engine. The machinery must be so designed as to dig new ditches and also to clean out those already dug.

Bidders will be required to submit with their bids specifications to the minutest detail of the machinery they propose to furnish, giving full weight of machine, length of boom, turning radius, compression per square inch on Caterpillar Tractors, and the total load of hoisting cable at different elevations of the boom, with guarantee of cost of operation, etc., and must also state at what place similar machinery to that bid on is in operation.

Proposals must be accompanied by a certified check, money deposit or bidder's liability bond, payable to the Commissioners of Chatham County, in an amount equal to 5 per cent of the amount of the total bid, to insure the successful contractor delivering the machinery bid on and at the time he agreed to deliver the same.

TIME OF PAYMENT: The successful bidder will be paid on the 15th of the following month after delivery and acceptance of the machinery by the County Commissioners, by a warrant on the County Treasurer to be paid when in funds. Said warrant when presented to and stamped by the County Treasurer will bear interest at the rate of 7 per cent from the time of said presentation and stamping until paid.

The right is reserved to reject any or all bids and to waive all formalities.

By order of
COMMISSIONERS OF CHATHAM COUNTY AND EX-OFFICIO JUDGES.
G. Reuben Butler,
Clerk. (L. S.)

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS WATER POWER, MISCELLANEOUS PROPERTIES

SOUTHERN INVESTMENT Opportunities. We offer timber lands, coal lands, mines, sawmills, cotton mills, industrial plants, ice plants, public utilities, quarries, etc. Hodgeson Investment Co., Knoxville, Tenn.

IRON ORE

FOR SALE—Over 300,000,000 tons iron ore, bargeable to Muscle Shoals, mined by steam shovel, large manganese spread. C. G. Samuel, Athens, Tenn.

COAL LANDS AND MINES

FOR SALE OR EXCHANGE—2500 acres unimproved coal land in tracts, \$35 per acre; has several seams; top drift; adjacent railroad, mines, gas and oil. Write J. CAVANAGH, McAlester, Okla.

RATES AND CONDITIONS

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: invariably cash with order; check, postoffice or express order or stamp accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisement accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 26c. per line; 500 lines or more, 25c. per line.

COAL LANDS AND MINES

FOR SALE—Electrically equipped domestic fuel coal mine, Drift, Good roof, Dry Leases controlling thousands of acres with two seams at four hundred dollars annual expense, cheaper than owning. Non-union, Permanent injunction. No labor trouble. Sell at a sacrifice. Owner going South. Box 51, Mannington, West Virginia.

MOULDING AND SILICA SAND LAND

FOR SALE—Moulding and Silica Sand Land Address T. J. Nertney, Ottawa, Ill.

TIMBER AND TURPENTINE PROPOSITIONS
WHEN IN THE MARKET for a saw mill, timber or turpentine proposition, write the **LAND MARKET**, Palatka, Fla.

December 27, 1923.
Manufacturers Record.**TIMBER AND TIMBER LAND**

FOR SALE: 4,000,000 feet long and short leaf pine, located on Chattahoochee River and seven miles from A. C. L. R. R. Karl Simmons, R. F. D., Bascom, Fla.

TIMBER AND MILL MEN—Have fine Mahogany tract in Mexico. Other hardwoods there and in the South. Good transportation. Write me your needs, I want to supply them. Wm. S. Bye, Cedar Rapids, Iowa.

ESTATES AND RANCHES WANTED

WANTED—Large Southern estates and Western ranches, stocked and equipped to exchange for Northern and Eastern income property showing around 10 per cent net, \$50,000 up. Arthur M. Connor, 726 14th Street, N. W., Washington, D. C.

FARM, FRUIT, AND TRUCK LANDS**FLORIDA**

FLORIDA—Playground of the Rich; Paradise of the poor. The fastest developing State in the Union, and Roger Babson, the great business statistician, says that TAMPA is destined to be the greatest city in the Southeast. Come and be one of us. We have a Home, Grove or Farm for you. Send today for booklet "Largest Orange Tree in the World," and list. Tampa-West Coast Realty Co., (Inc.), Opp. Post Office, "Since before the war," Tampa, Fla.

SOUTH CAROLINA

MR. BUSINESS MAN OR SPORTSMAN, how would you like a winter home site on deep salt water among giant oaks, magnolias, pines, green lawns, where you can grow flowers, oranges and grapefruit? Within two hours' reach by automobile of duck, quail, deer, turkey and other wild game. Excellent climate and health. Our chief industry is growing vegetables for shipment in car and train lots in winter and early spring. Plenty of laborers. Good churches, schools, and real American citizens. Write us for further information.

LAKE REALTY COMPANY,
Beaufort, S. C.

FOR SALE—10,000 acres unimproved land, in one body, 6 miles on public road from Georgetown, S. C. Suitable for colonization purposes for farms, cattle range or hunting preserve; deer, turkeys, birds and other game on property. For price and full information write to W. D. MORGAN, Georgetown, S. C.

VIRGINIA

"**F FARMS TO FIT**" All kinds, easy terms. Booklet free. Magnificent 2230 acre estate, \$90,000. Easily worth \$200,000. Ponton, The Farm Tailor, Box 343, Bedford, Va.

BUSINESS OPPORTUNITIES

EVER-TYTE AND ZELCO PISTON RINGS with patented Zelco Process saves Gasoline, Oil, increase capacity, prevent cylinders from wearing out of round, lessen Carbon; after using, make arrangement with us to sell them; are looking for distributors with mechanical knowledge; made up to 80 inch; used in Locomotives, Boats, Engines, Compressors, Ice Machines, Pumps, Trucks, Tractors, etc.; real opportunity; all or part time. Ever-Tyte, St. Louis.

FOR SALE—Established Clothing Manufacturing Plant. Going Concern. Location best in the South. Firm well and favorably known to the trade. Unlimited possibilities for right party. Reason for selling, age and failing health of owners. Address Box 1323, Charlotte, N. C.

AN EXPERIENCED lumberman without capital, wishes to re-enter the lumber business about January 1, by operating several small mills in Virginia, cutting pine and hardwood, and wants to get in touch with party who will finance. Address No. 6284, care Manufacturers Record.

BUSINESS OPPORTUNITIES

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C.

M. B. HARLOW,
Harlow Building, Colorado Building,
Alexandria, Va. Washington, D. C.

FIFTEEN THOUSAND DOLLARS CASH and other considerations will get the **VERY BEST GARAGE** proposition in **VIRGINIA**, and A. Lee Knowles, at Staunton, Va., has it for sale. **THIS IS THE REAL THING.** KNOWLES KNOWS.

WANTED CAPITAL to develop town site, have 640 acres that two big railroad crosses on, in S. E. Okla., surrounded by Coal, Oil, Gas and rich farming. For particulars write

J. E. Cavanagh, McAlester, Okla.

WANTED—Party to sell or organize company to operate attractive West Virginia land and timber proposition. Address No. 6238, care Manufacturers Record, Baltimore.

FINANCIAL

VALUABLE TEXT-BOOKS on the "Money Question"—The most vital question affecting the welfare of the people. The Monetary Educational Bureau, Kellogg Bldg., Washington, D. C.

SOUTHERN**MILL STOCKS****BANK STOCKS****BONDS**

25 years' experience in this field.
F. C. ABBOTT & CO.,
Charlotte, N. C.

INDUSTRIES WANTED

THE CITY OF POWER, ELIZABETHTON, TENN., offers to industries: Water power from two rivers; six miles factory sites; native labor, with only one-tenth of 1% foreign born (U. S. Census); more than 25 important minerals within 25 miles; virgin timber in nearby National Forest; two railroads, electric power, pure water. Location is especially suitable for woodworking, textile, ceramic, paper and metalworking plants. Write Chamber of Commerce.

INDUSTRIAL PLANTS

FOR SALE—Owner retiring, will sell cheap a good coal yard and flour mill with sidings on two railroads. Located in growing city. Good paying business for live man. Address P. O. Box No. 11, Hagerstown, Md.

PATENT ATTORNEYS

PATENTS—TRADEMARKS—COPYRIGHTS. WRITE for our free Guide Books and "RECORD OF INVENTION BLANK" before disclosing inventions. Send model or sketch and description of your invention for our free prompt opinion of its patentable nature. Highest references. Reasonable terms. VICTOR J. EVANS & CO., 712 Ninth St., Washington, D. C.

PATENTS—Booklet free. Highest references. Best results. Promptness assured. Watson E. Coleman, Patent Lawyer, 644 G St., N. W., Washington, D. C.

INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book, "How to Obtain a Patent" sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chandee & Chandee, 412 7th St., N. W., Washington, D. C.

PATENT SENSE
"The Book for Inventors and Manufacturers." FREE. WRITE LACEY & LACEY, Dept. 15, Washington, D. C. Est. 1869.

AGENCIES WANTED

TRAVELING SALESMAN—Twenty years experience in Md., Va., Pa., desires mfg. lines only; thoroughly acquainted in this territory; best of references. Address No. 6230, care Manufacturers Record, Baltimore, Md.

AGENCIES WANTED

WANTED—In order to increase our present lines, Sales Organization now operating in Southeastern territory desires connection with high-class manufacturer. If you have an article of real merit which we can offer to textile mills, steel mills, lumber mills, etc., write us. We can put the organization behind it. Address No. 6266, care Manufacturers Record, Baltimore, Md.

SITUATIONS WANTED

GRADUATE ELECTRICAL ENGINEER, thirty-five years old, who has considerable executive experience and is A-1 salesman; but has been out of Engineering for three years on account of family reasons; desires to connect himself with responsible house in Southern territory, where energy and ability will count, preferably in capacity as salesman. No. 6265, care Manufacturers Record, Baltimore, Md.

SALES MANAGER OR INSIDE ASSISTANT to busy sales executive. Unusually successful record for digging up new and stimulating old dealers; good correspondent; direct-by-mail campaigns. Wants suitable connection. P. O. Box 60, Norfolk, Va.

SALES MANAGER—For prominent corporation, electrical equipment or machinery or power equipment. Wide experience, good, clean-cut man. Prefer east. Headquarters Philadelphia or New York. Available January 1, 1924. High class proposition. High grade man. Salary and bonus preferred. Address No. 6267, care of Manufacturers Record, Baltimore, Md.

MEN WANTED

Salaried positions \$2500 to \$25,000 upward; executive, technical, administrative, engineering, manufacturing, professional managing, financial, etc., all lines. If you are qualified and receptive to tentative offers for a new connection you are invited to communicate in strict confidence with the undersigned who will conduct preliminary negotiations for such positions. A method is provided through which you may receive overtures in confidence, without jeopardizing present connections, and in a manner conforming strictly to professional ethics. Send name and address only; preliminary particulars will be sent without obligating or compromising you in any way. R. W. Bixby, Inc., 403 Lockwood Building, Buffalo, N. Y.

WANTED—TECHNICAL TRAINED MAN with some experience industrial problems of Southeast, particularly Alabama, to be Secretary and Manager of Industrial Bureau. Write W. F. Black, Gen. Sec., Chamber of Commerce, Montgomery, Ala.

GENERAL MANAGER—Hardwood lumber mill, large property; state qualifications, age and salary expected. Address P. O. Box 820, Cincinnati, Ohio.

FIRST CLASS leather belting manufacturer, requires representative, experience necessary, good opportunity for the right man. Address No. 6250 care Manufacturers Record, Baltimore, Md.

SALESMAN—High grade salesman with mechanical training to sell Davenport Heavy-duty Oil Engines to dealers and industrial plants. Opportunity to earn big commissions. Full time and side line men wanted. Write Dept. 309, Davenport Mfg. Co., Inc., Davenport, Iowa.

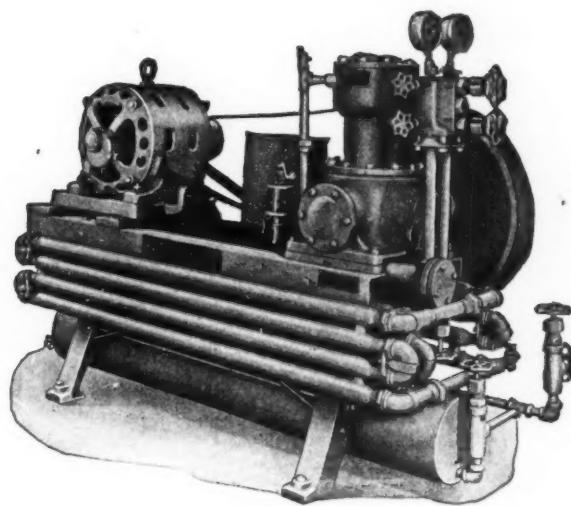
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BOILERS FOR SALE, USED. We have several boilers in good condition 40, 60, 80 and 100 H.P. Good opportunity. Write for particulars and specifications. Camp Mfg. Co., Franklin, Va.

**CLIMAX
RECIPROCATING TYPE
REFRIGERATING UNIT
TWO TON SIZE**



48 INCHES HIGH
72 INCHES LONG
36 INCHES WIDE
WEIGHT 1500 LBS.

Dependable Refrigeration —Always

Outstanding Features of the Climax Two-Ton Refrigerating Unit

1. Self Contained Unit—The Compressor, Motor, Oil Separator, Condensers, Liquid Receiver, Scale Trap, Valve Controls, and Safety Switch all mounted on one substantial frame.
2. Compact in construction, yet is readily accessible at every part. Floor space required 3' x 6'. Can be taken through any 2½' doorway or passage.
3. Complete High Side Unit with motor mounted weighs only 1500 lbs. Does not require special foundation. Can be placed on wooden floor at side or rear of refrigerator, if desired.
4. Simplicity of control by means of water valve also provides absolute safety under all conditions.
5. Wrist Pin upkeep eliminated. There are no Connecting Rods, Wrist Pins or Wrist Pin Bearings.
6. All working parts fully submerged in oil.
7. All bearings generously oversize.
8. Non-clearance Compressor.
9. Simple and efficient Suction and Discharge Valves, readily accessible by removing Cylinder Head.
10. All Control Valves and Automatic Safety Valve contained in one piece drop forged steel manifold block.
11. Multiple, headered, double pipe condenser. All gas chambers welded. All water pipes accessible for cleaning.
12. Entire water system easily drained to prevent freezing.
13. Machine cannot be accidentally operated without a sufficient supply of condenser water.
14. Large volume, welded oil separator provides positive separation of oil from gas.
15. Extra large liquid receiver—welded.
16. Entire unit carefully tested at factory.
17. All materials and workmanship of highest order. All parts interchangeable.
18. Designed to give high operating efficiency.

That is what you can count on when you install the Climax Reciprocating Type Refrigeration Unit.

- You never have a shortage of Refrigeration.
- It works Holidays and Sundays.
- You avoid the loss from lowered temperatures through ice filling.
- It is clean, sanitary—never wet and sloppy.

With Climax Equipment you can keep meats and other food commodities better and with less loss from spoilage.

CLIMAX RECIPROCATING TYPE **REFRIGERATION UNIT**

The entire outfit can be moved through a 2½ ft. door. Takes up only 36" x 72" floor space, is only 4 ft. high, and weighs only 1,500 lbs. Requires no special concrete foundation. Is economical to operate, and absolutely dependable.

Installed to meet your particular requirements by experienced Refrigeration Engineers.

Manufactured and guaranteed by a \$2,500,000 Corporation, the Climax Engineering Co., assuring the most prompt and thorough service, should the need arise.

Write us about your requirements. The services of our engineering sales department are offered without expense or obligation to you.

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1826 South Fourth Street, Clinton, Iowa

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